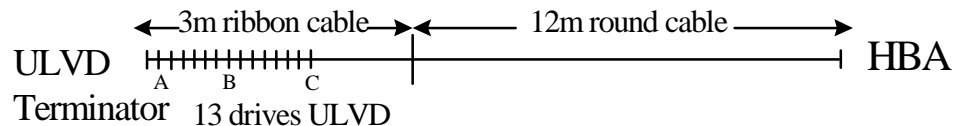


# Test Environment

- LVD Differential SKEW Testing - Multiple drive(s)
- This data is on a pretty poor (spec violation) cabling environment.
- 13 Drives connected at 0.2m centers on 3m of unshielded ribbon cable (3M 30AWG)
- 12m of shielded round cable (Montrose/CDT CBL 1064-34 Twisted pair) connected from Host adapter to one end of ribbon cable
- Termination at opposite end of HBA on ribbon cable
- Scope used: HP5472D, with 2 Gs/sec resolution.
- Probes used, HP 54701A 100K Ohm, 0.6pF 2.5GHz 200V

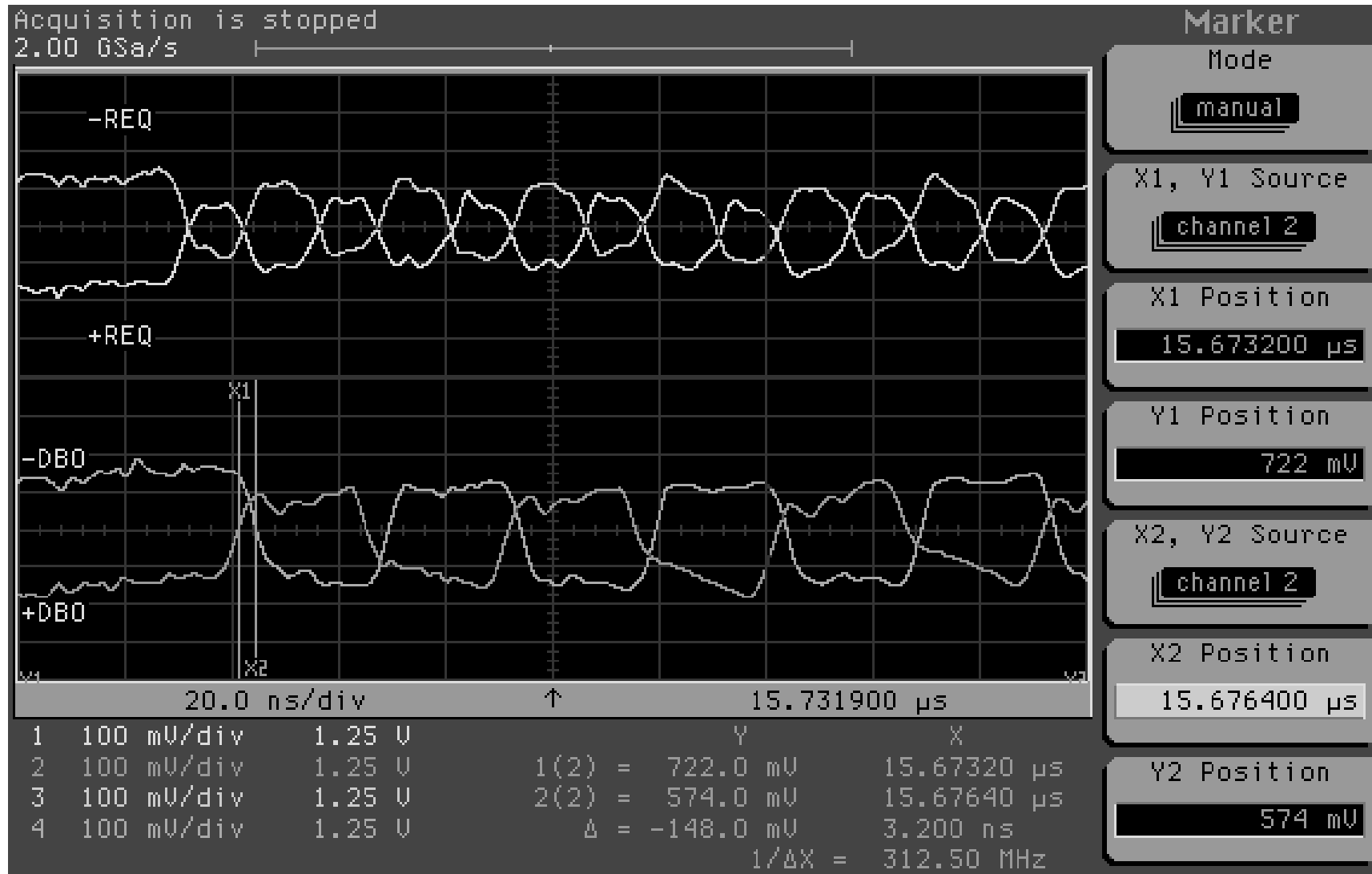


- Test points included connector nearest terminator (A), connector in middle of 13 drives(B), and connector closest to HBA(C)
- Experiment attempted to place .5pF, 1pF, and 2pF on one side of differential pair for all drives on the bus (13) and then examine effects at A B and C for Reads, Writes, setup, hold, and transitions.
- Pattern during reads and writes is alternating AAAA and 5555 pattern.

READ

Position B

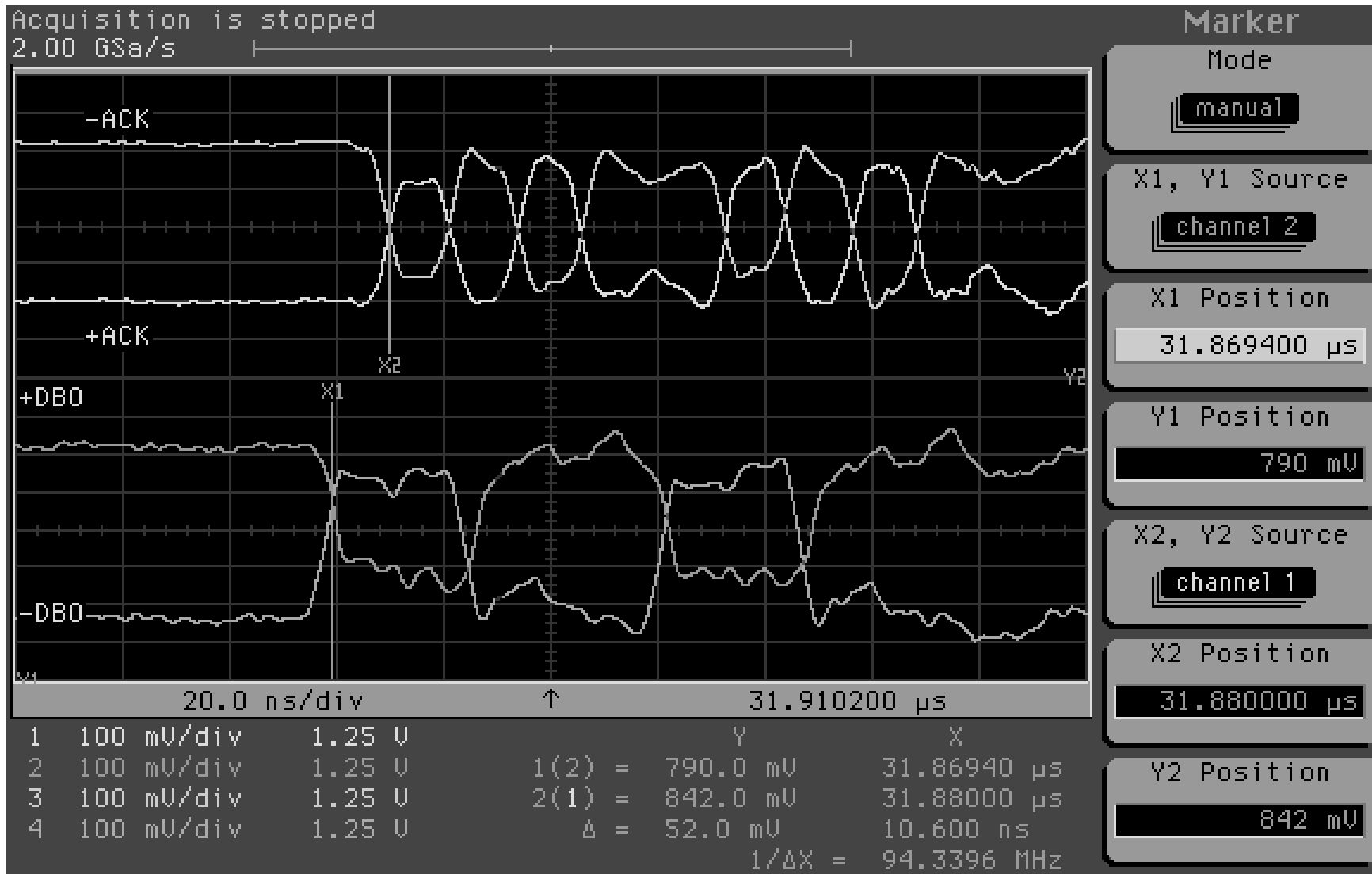
0.5pF



WRITE

Position B

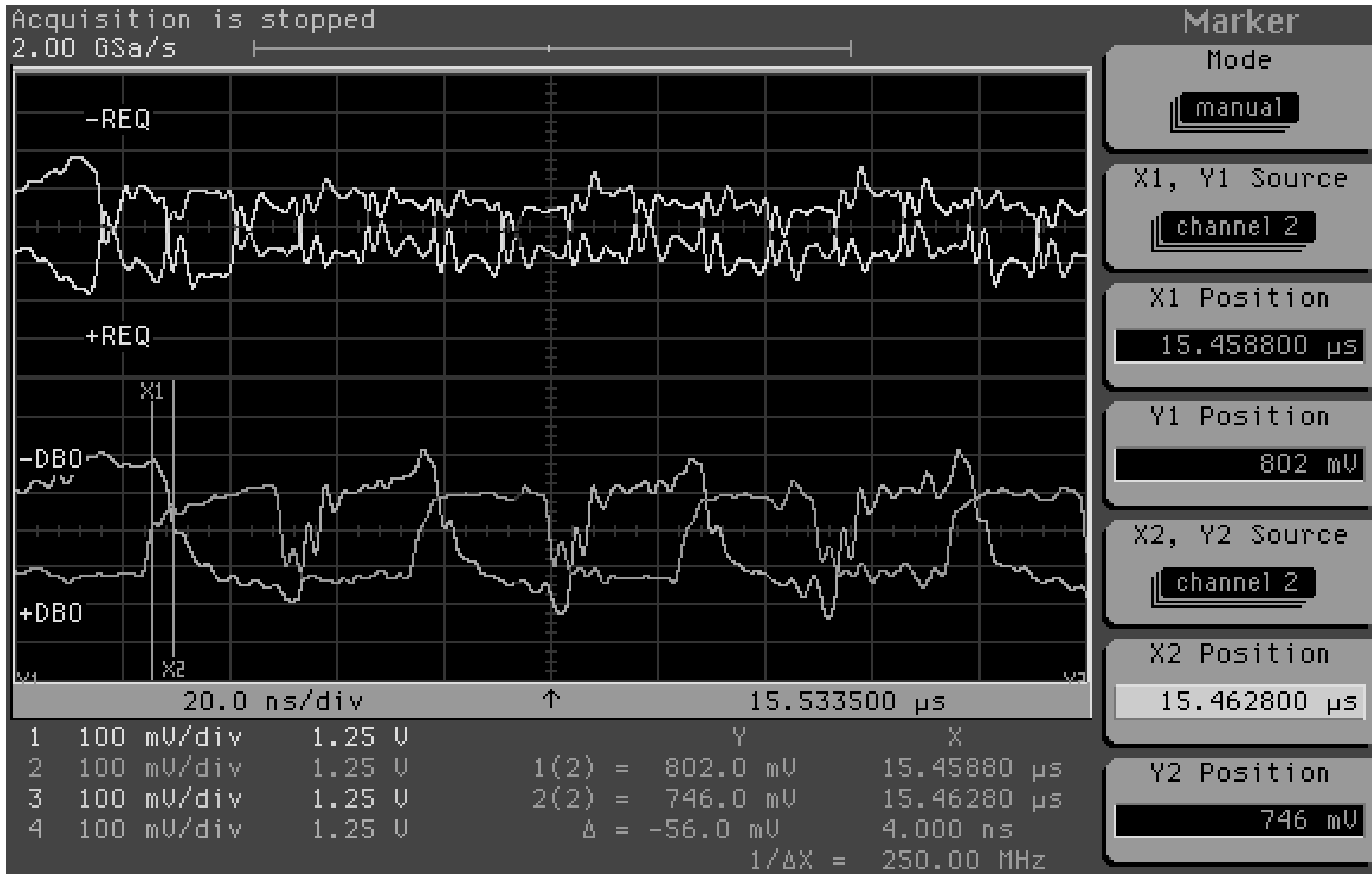
0.5pF



READ

Position C

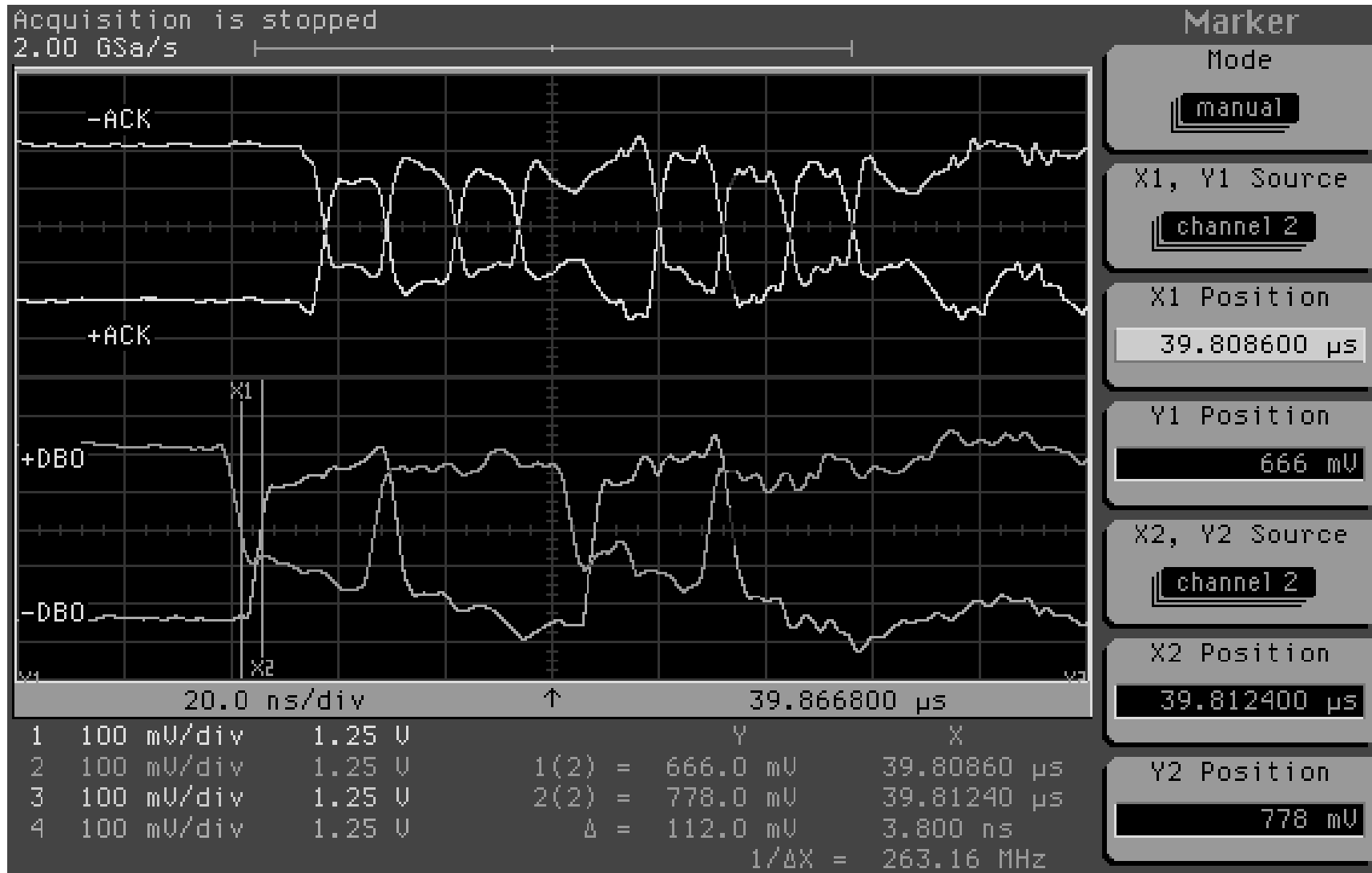
0.5pF



WRITE

Position C

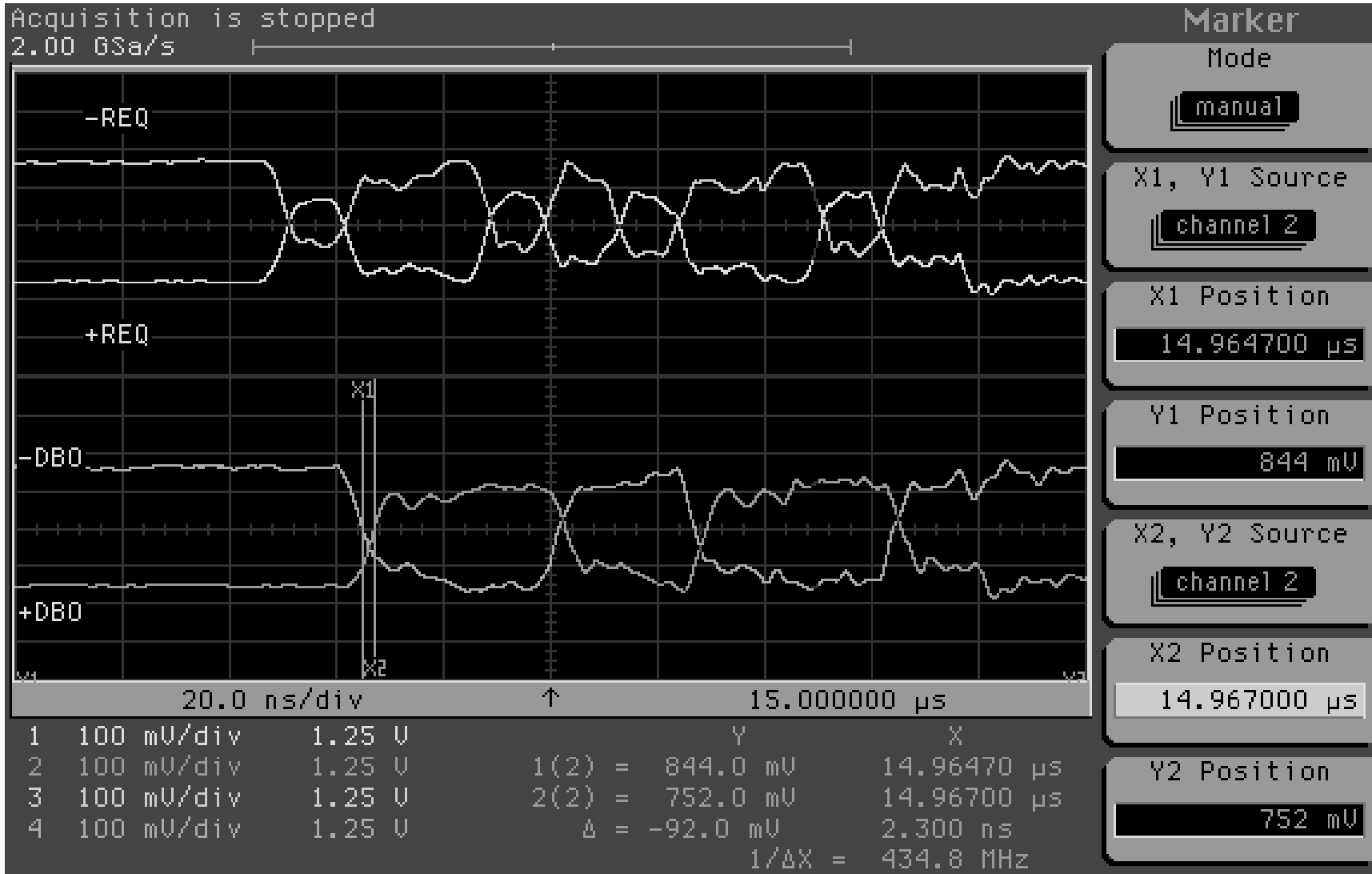
0.5pF



READ

Position B

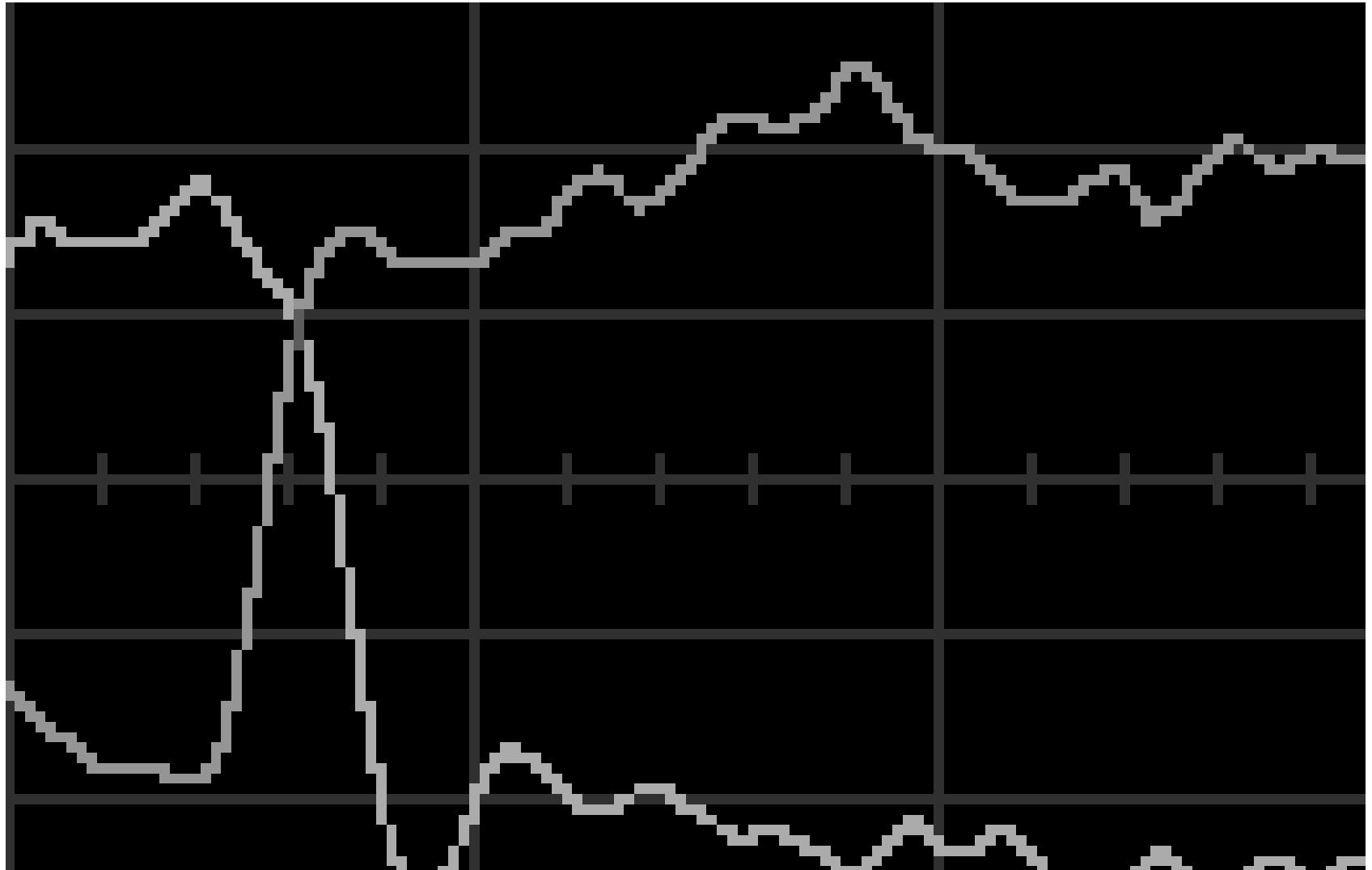
1.0pF



WRITE

Position B

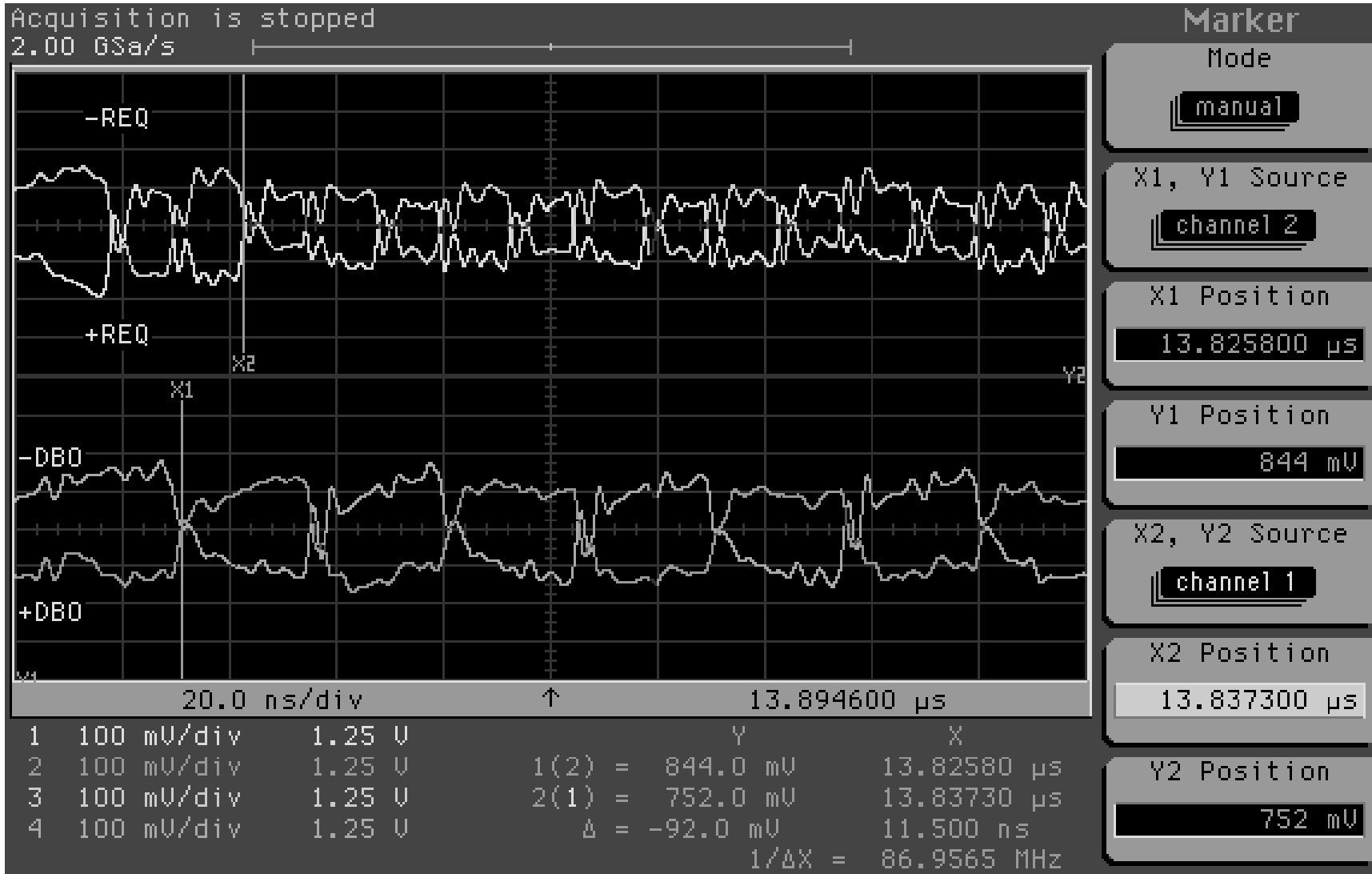
1.0pF



READ

Position C

1.0pF

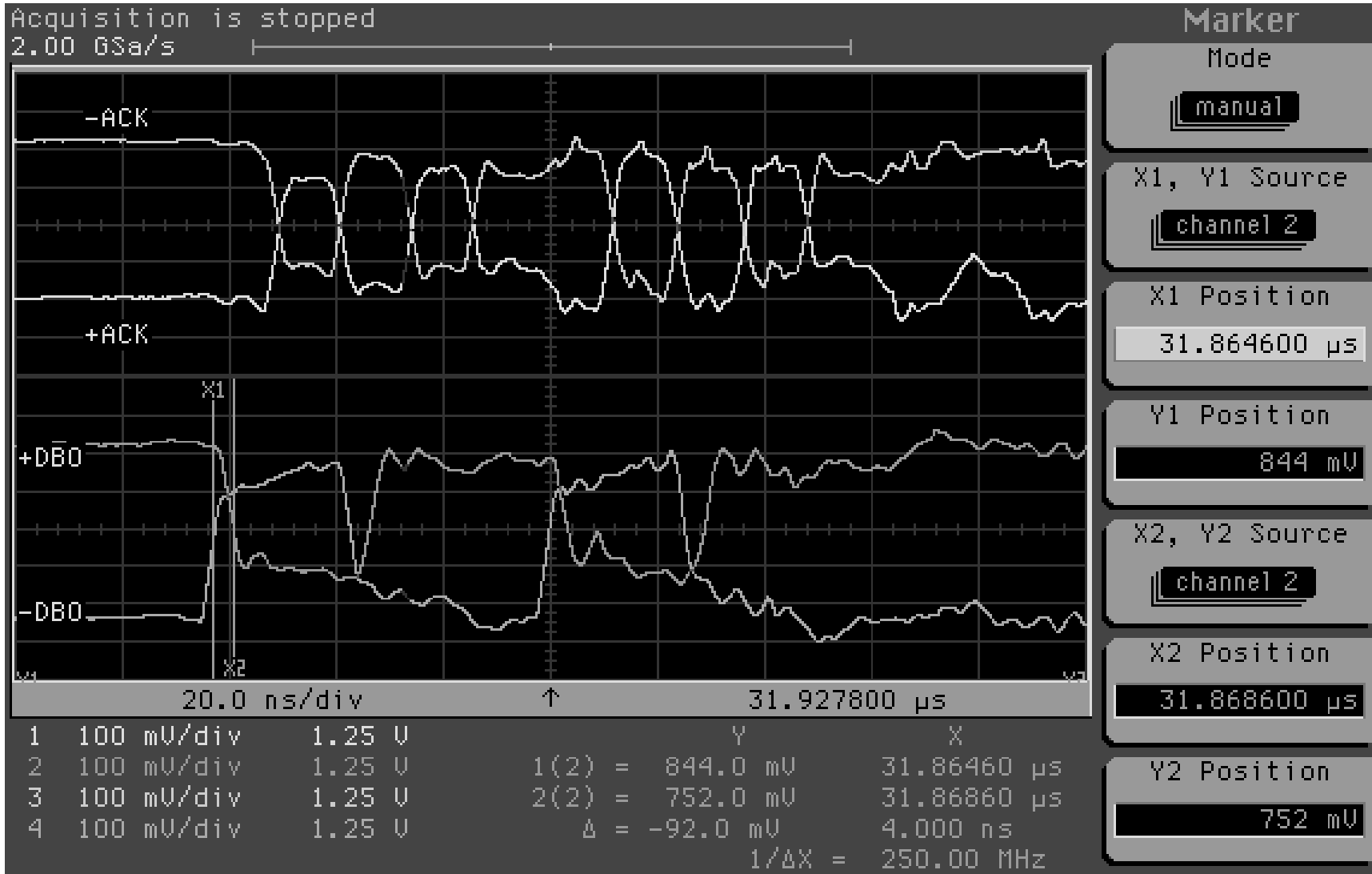




WRITE

Position C

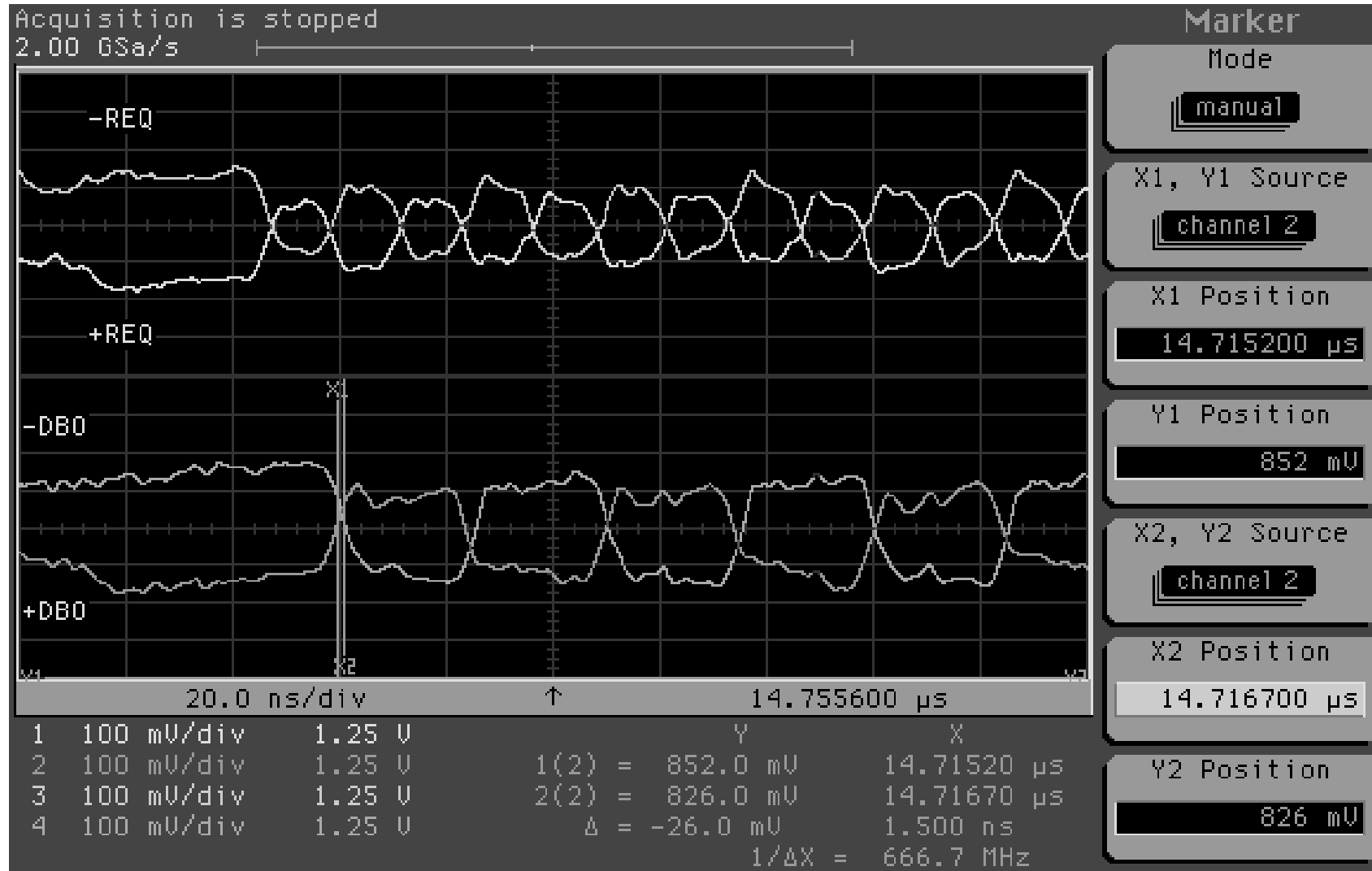
1.0pF



READ

Position B

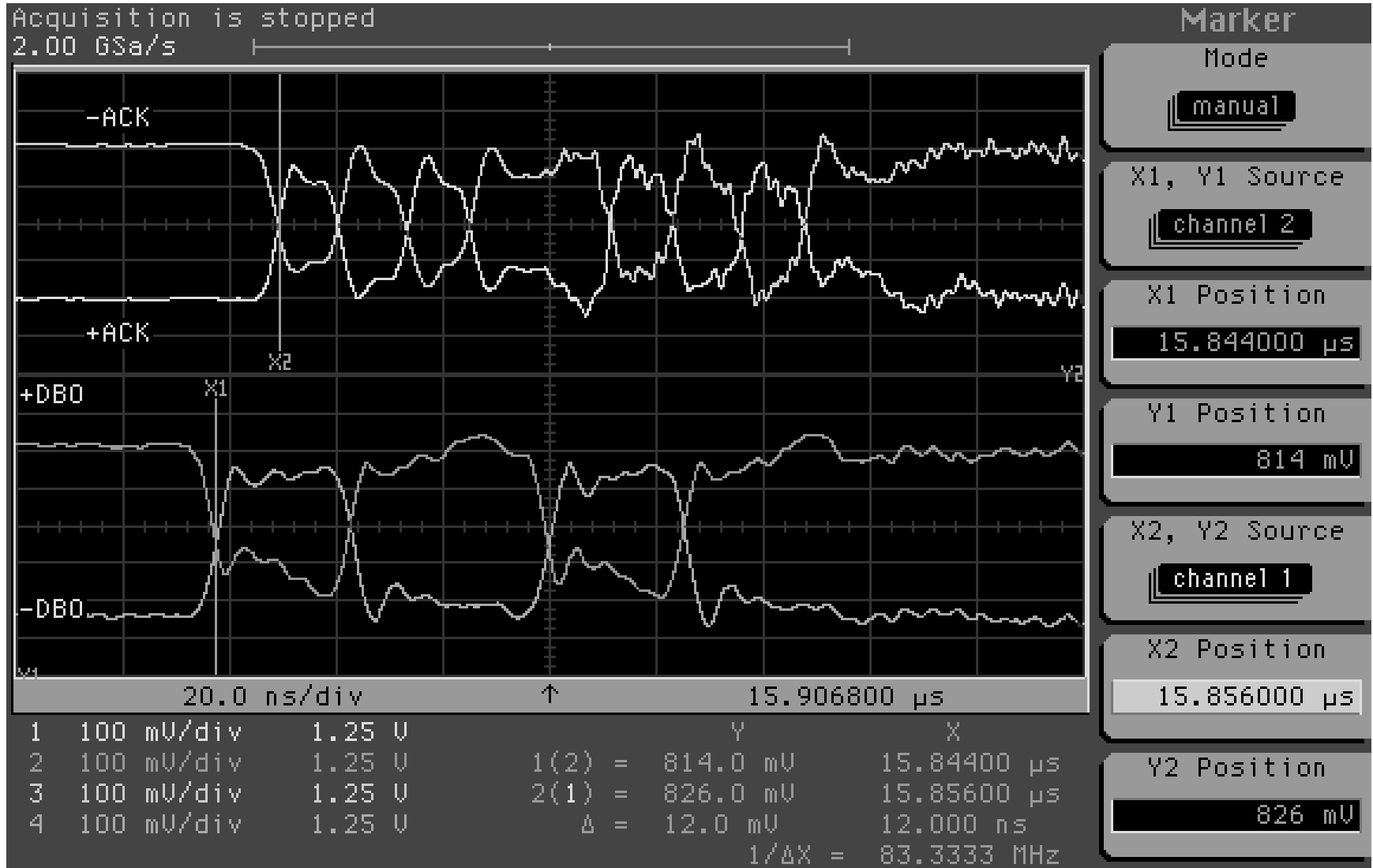
2.0pF



WRITE

Position B

2.0pF

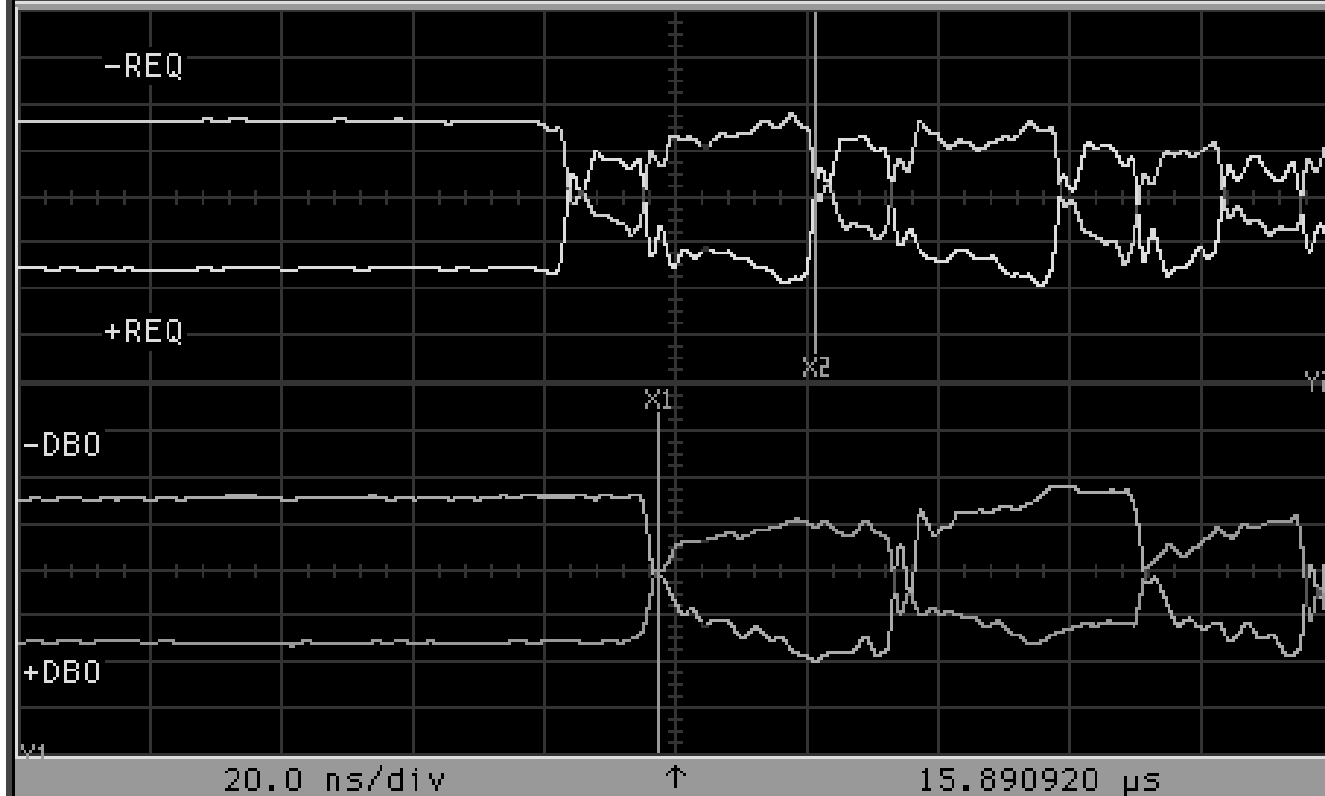


READ

Position C

2.0pF

Acquisition is stopped  
2.00 GSa/s



1	100 mV/div	1.25 U	Y	X
2	100 mV/div	1.25 U	1(2) = 794.0 mV	15.88815 μs
3	100 mV/div	1.25 U	2(1) = 738.0 mV	15.91235 μs
4	100 mV/div	1.25 U	Δ = -56.0 mV	24.200 ns
			1/ΔX = 41.3223 MHz	

Marker

Mode

manual

X1, Y1 Source

channel 2

X1 Position

15.888150 μs

Y1 Position

794 mV

X2, Y2 Source

channel 1

X2 Position

15.912350 μs

Y2 Position

738 mV

WRITE

Position C

2.0pF

