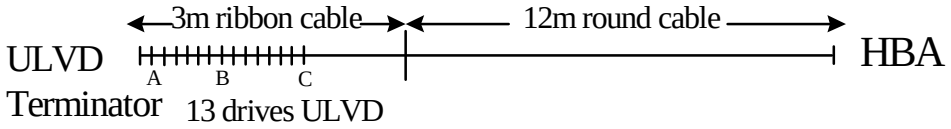
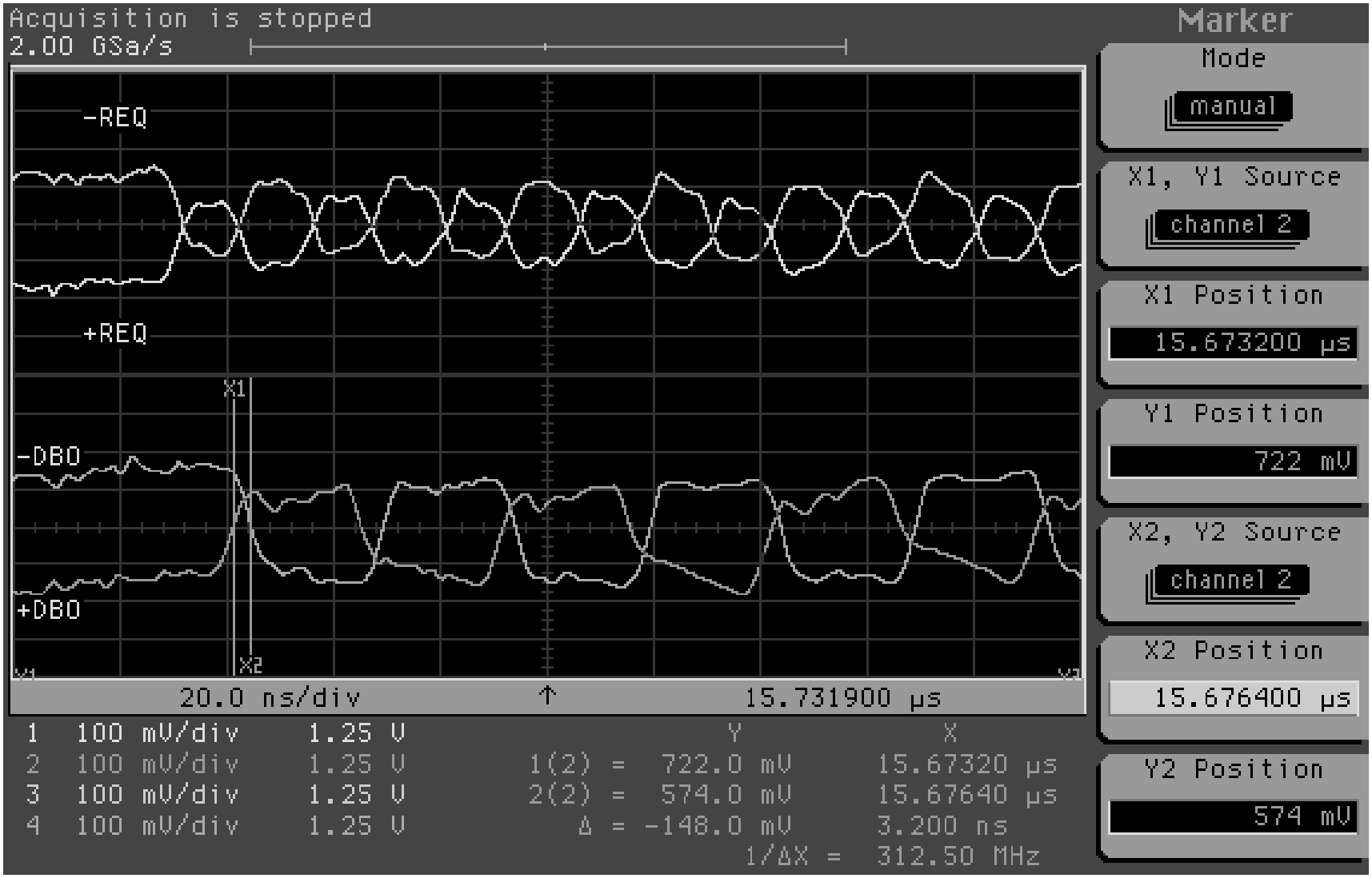
Test Environment

- 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



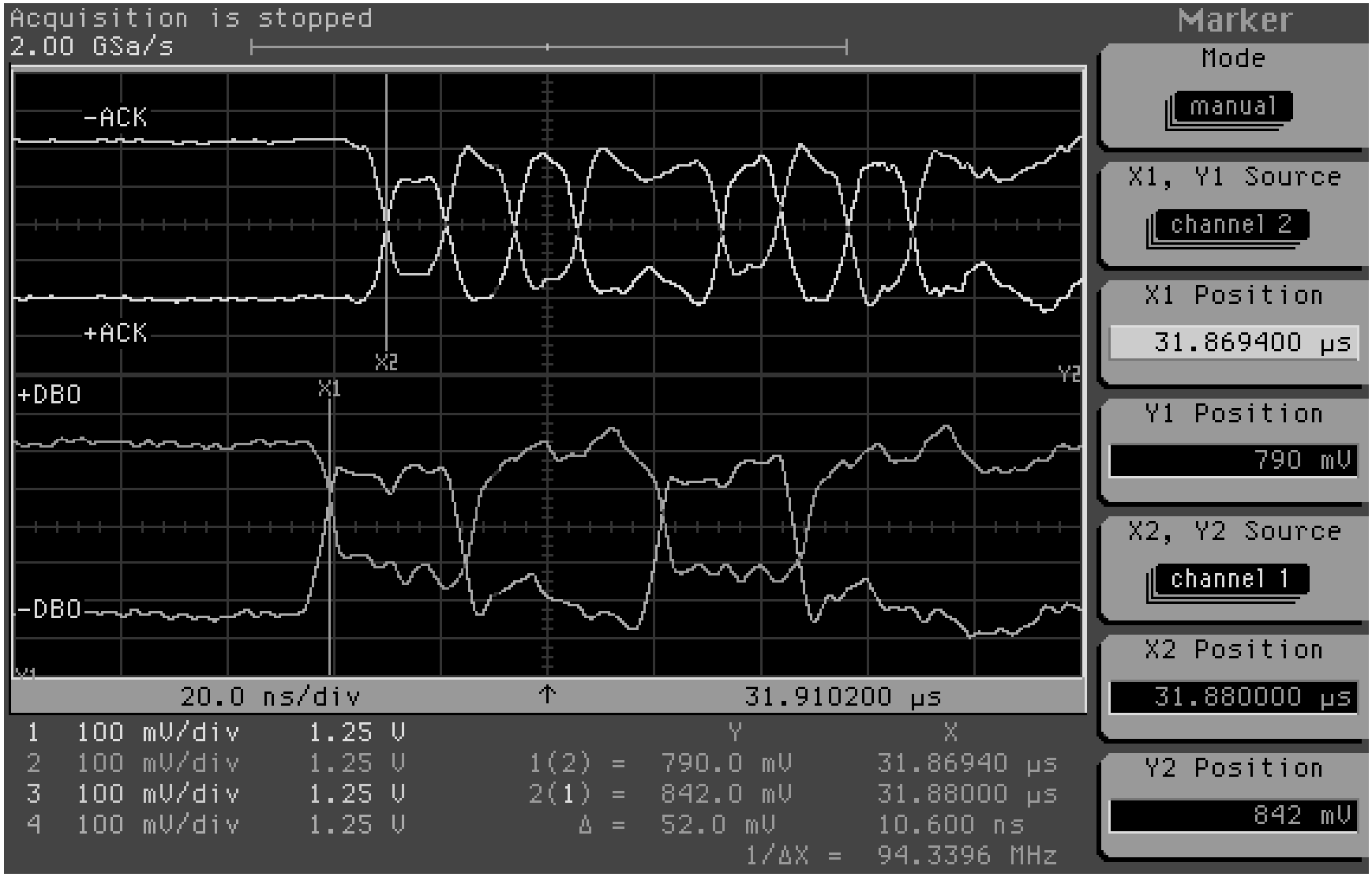
- Test points included connector nearest terminator (A), connector in middle of 13 drives(B), and connector closest to HBA(C)
- Experiment attempted to place .5pF, 1pF, and 2pF on one side of differential pair for all drives on the bus (13) and then examine effects at A B and C for Reads, Writes, setup,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

READ Position B 0.5pF



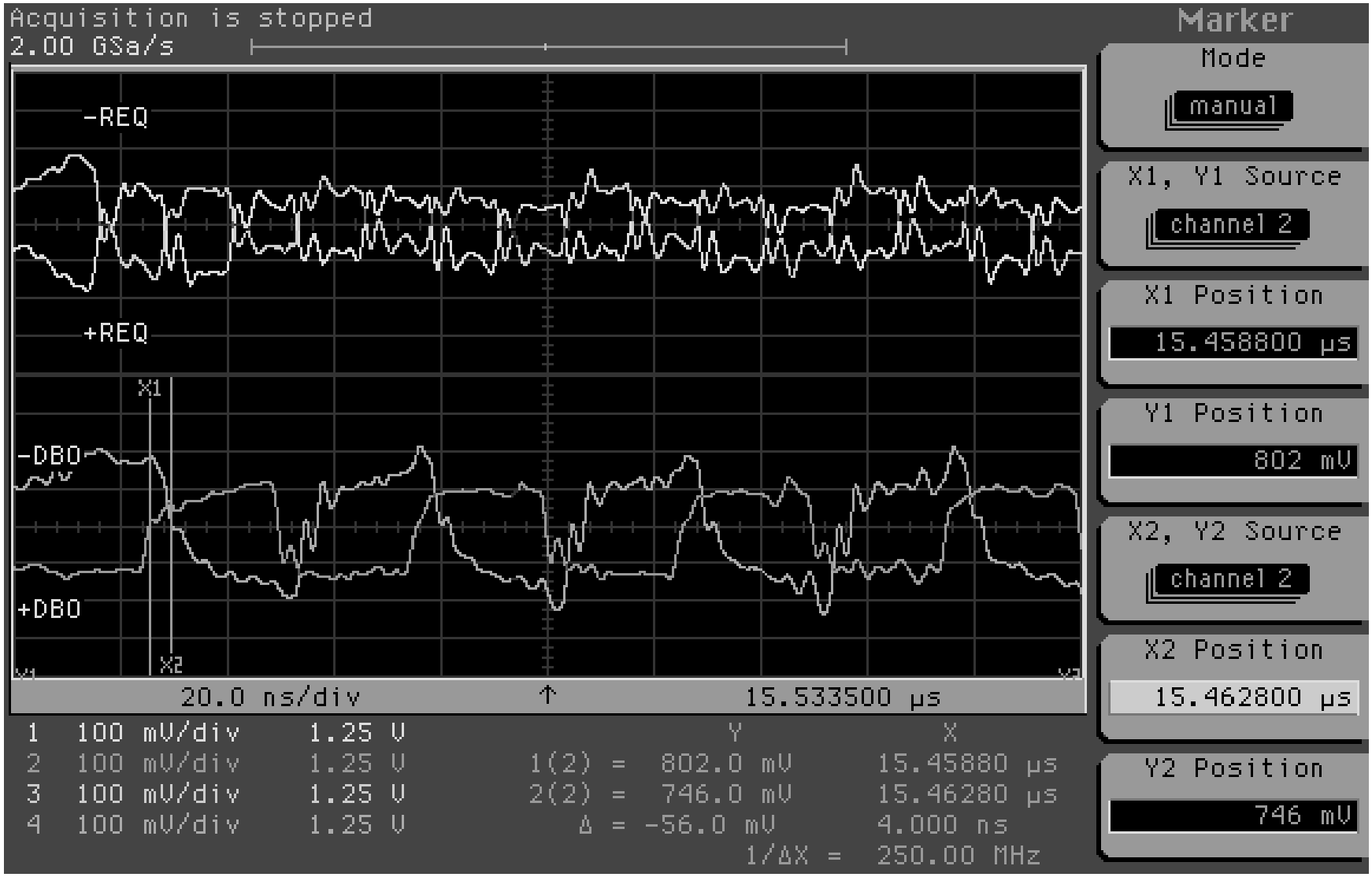
Western Digital

WRITE Position B 0.5pF



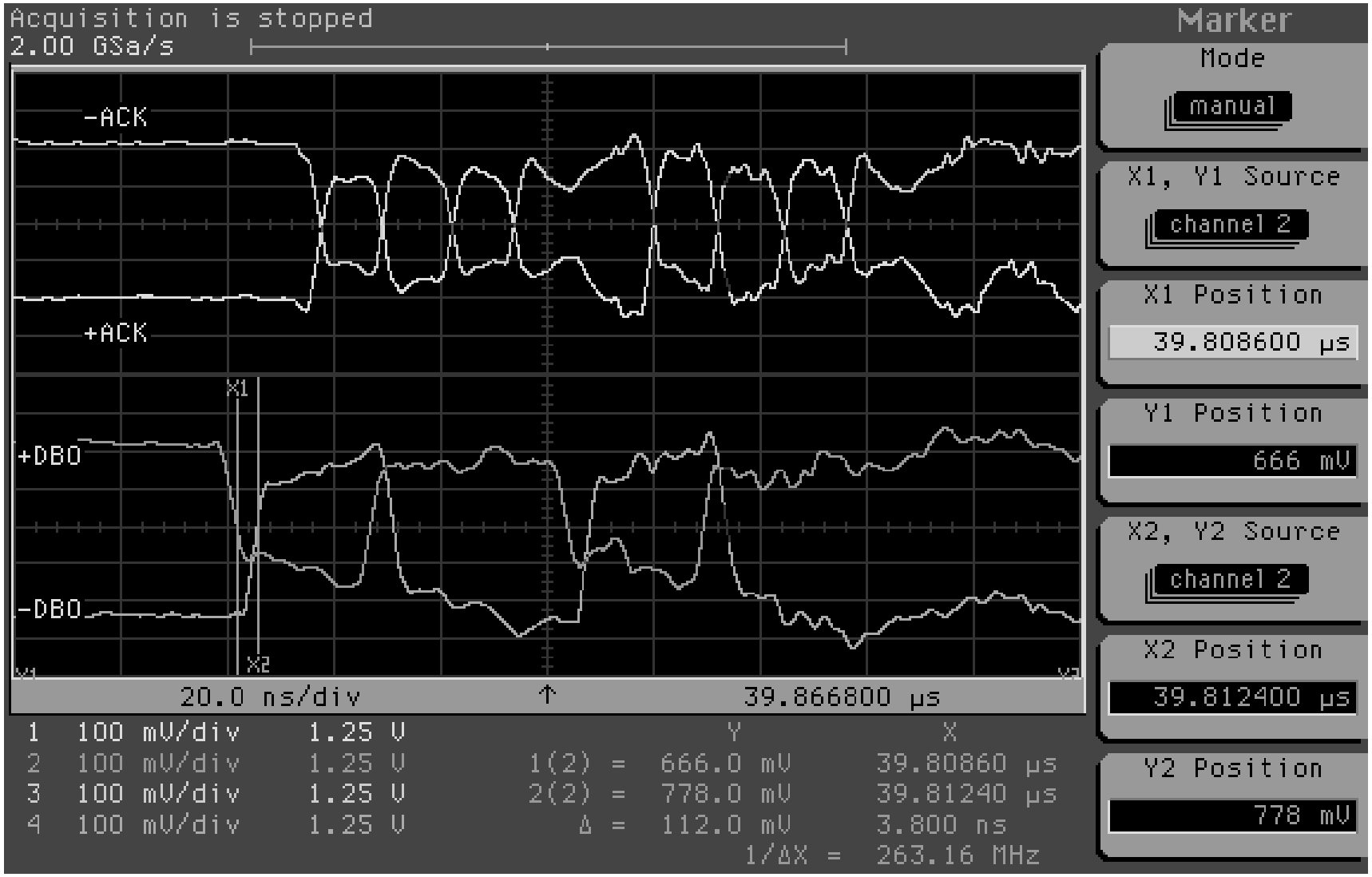
Western Digital

READ Position C 0.5pF



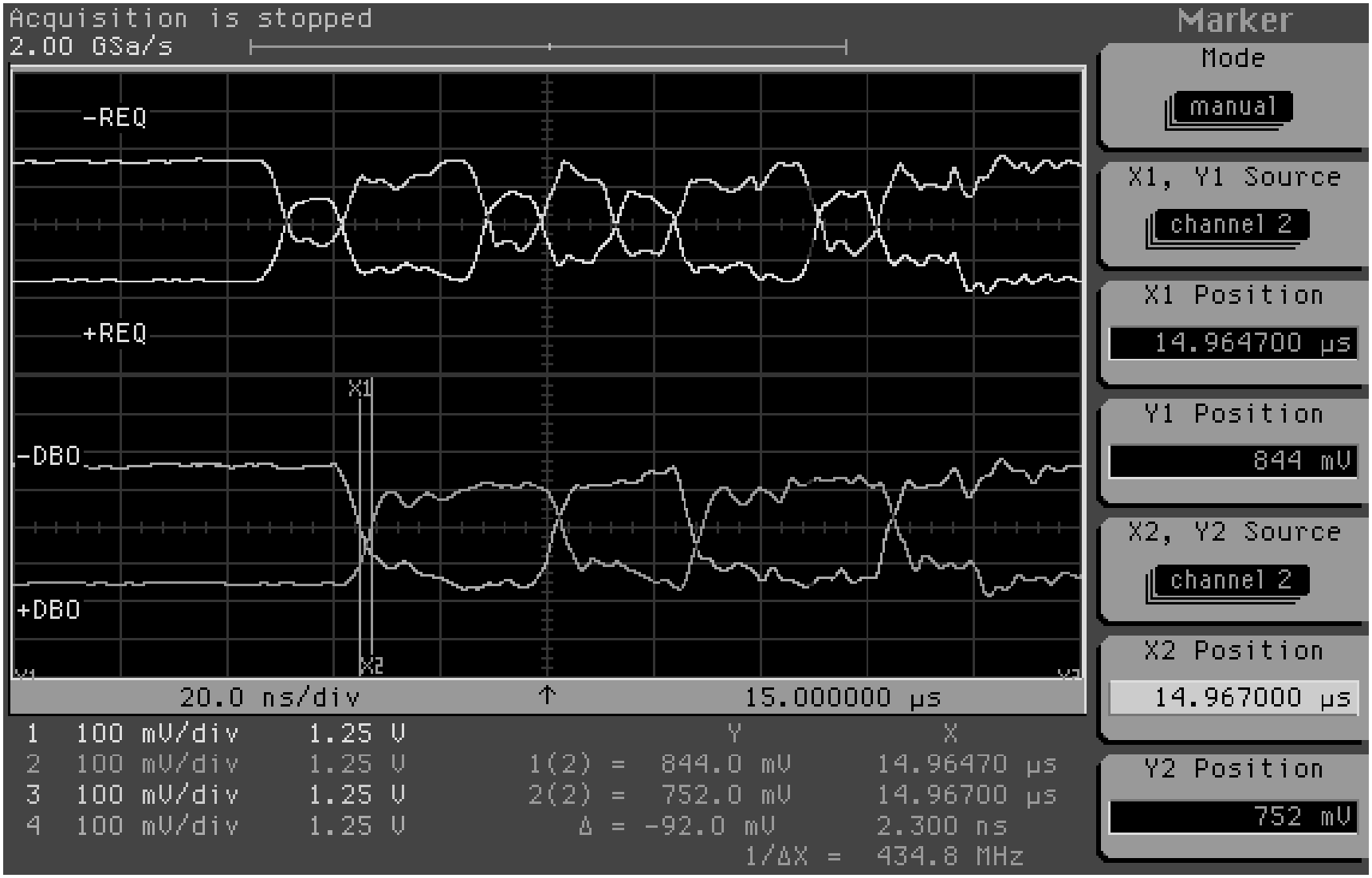
Western Digital

WRITE Position C 0.5pF



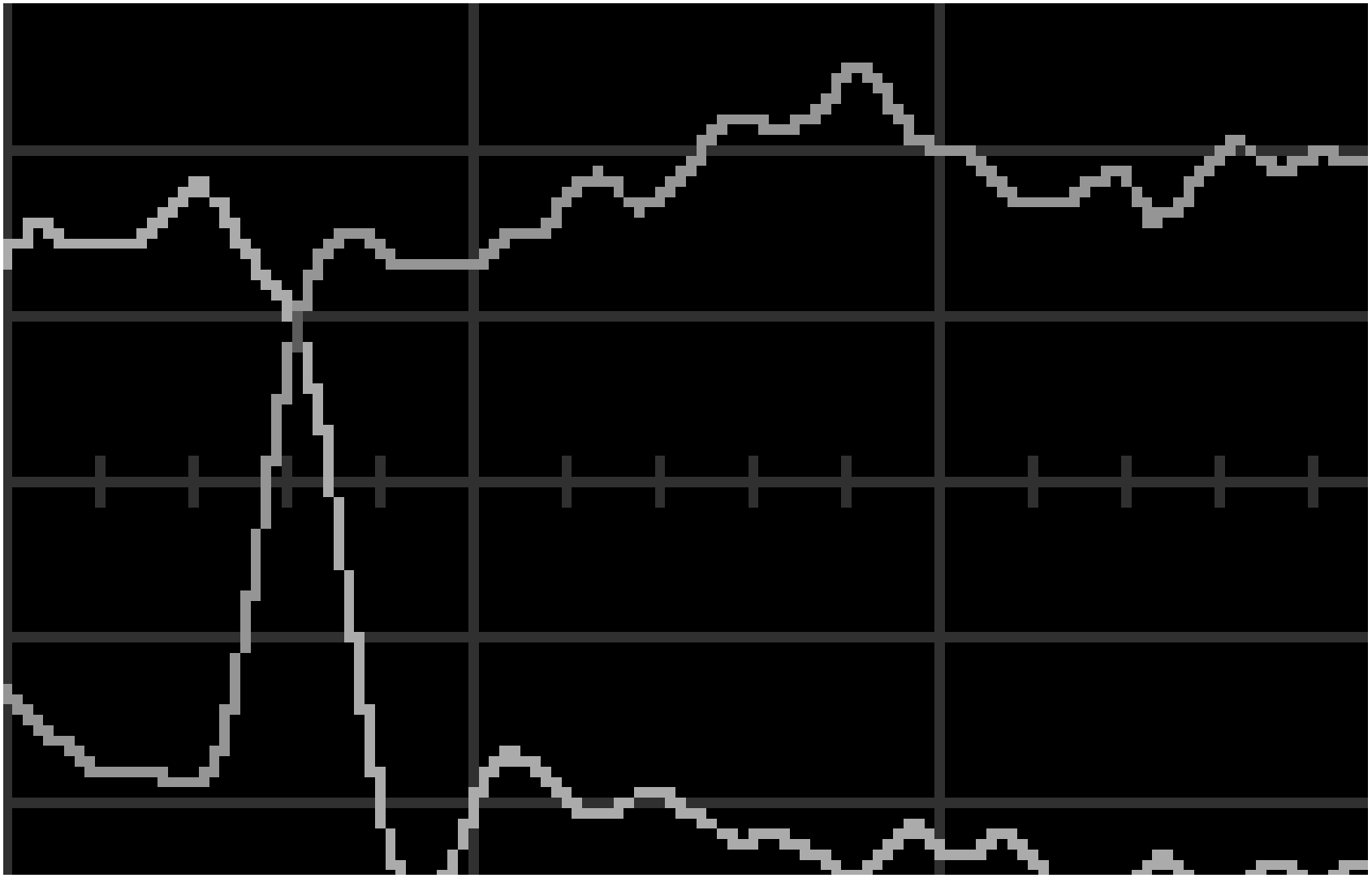
Western Digital

READ Position B 1.0pF



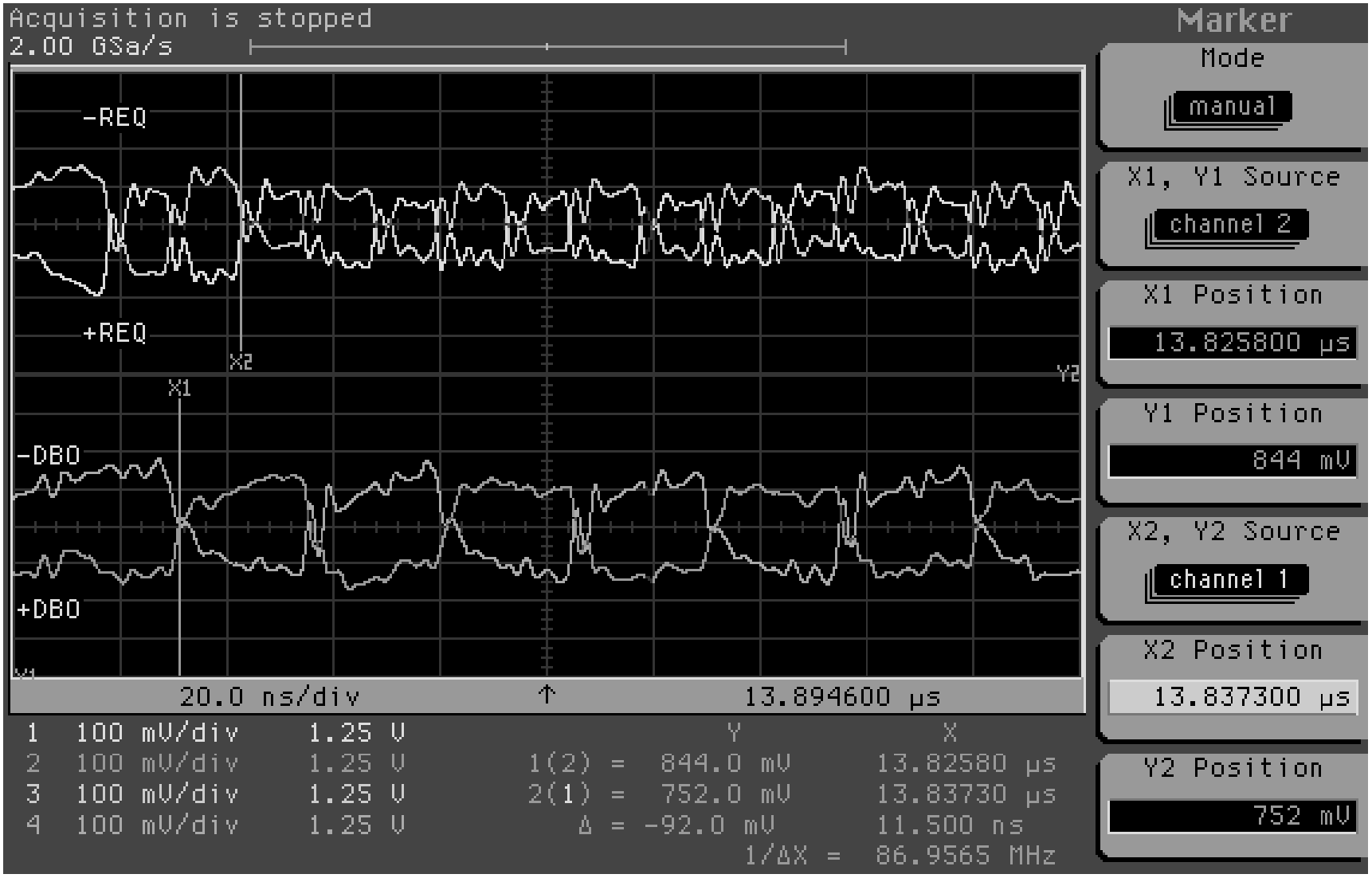
Western Digital

WRITE Position B 1.0pF



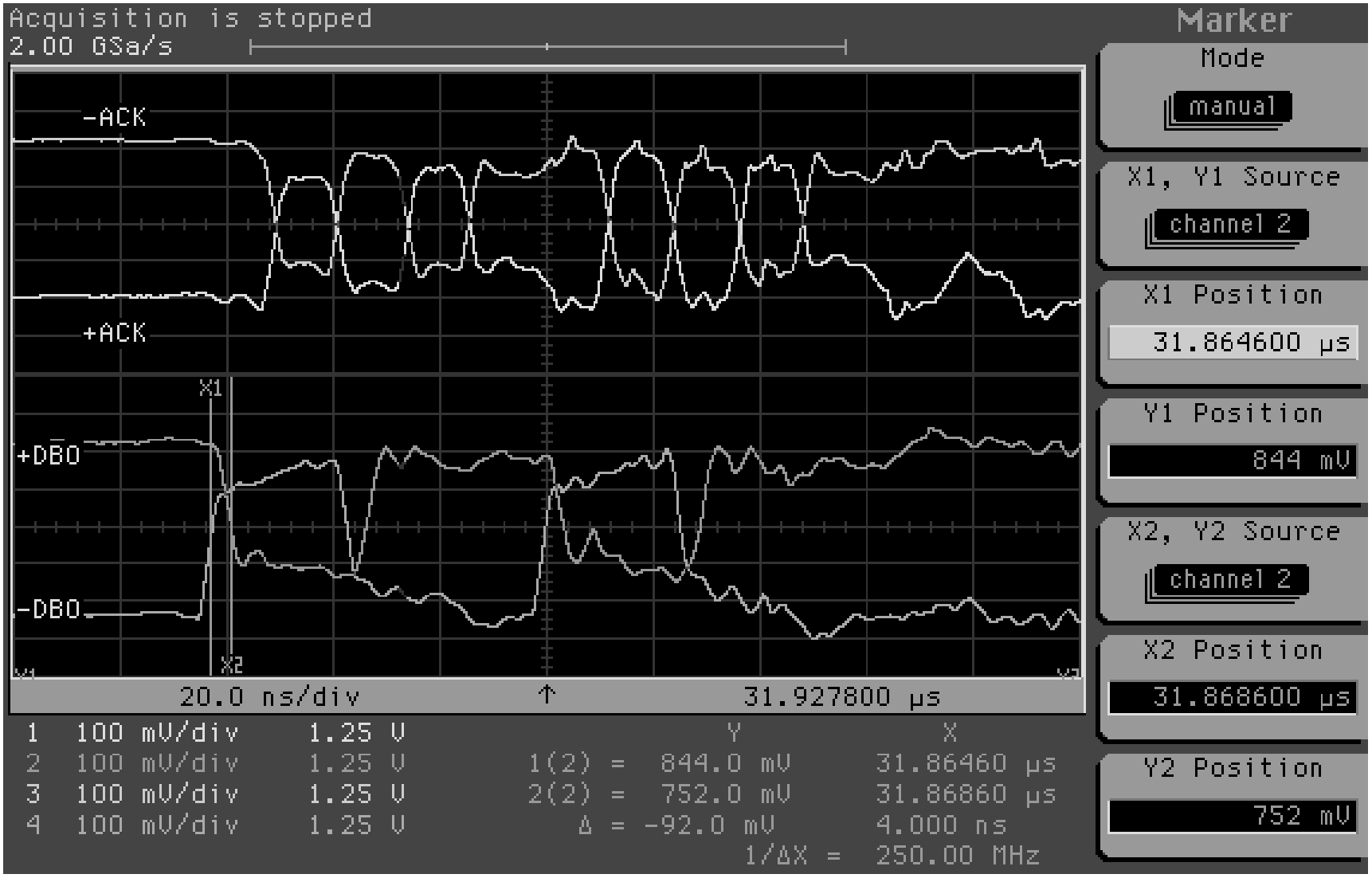
Western Digital

READ Position C 1.0pF



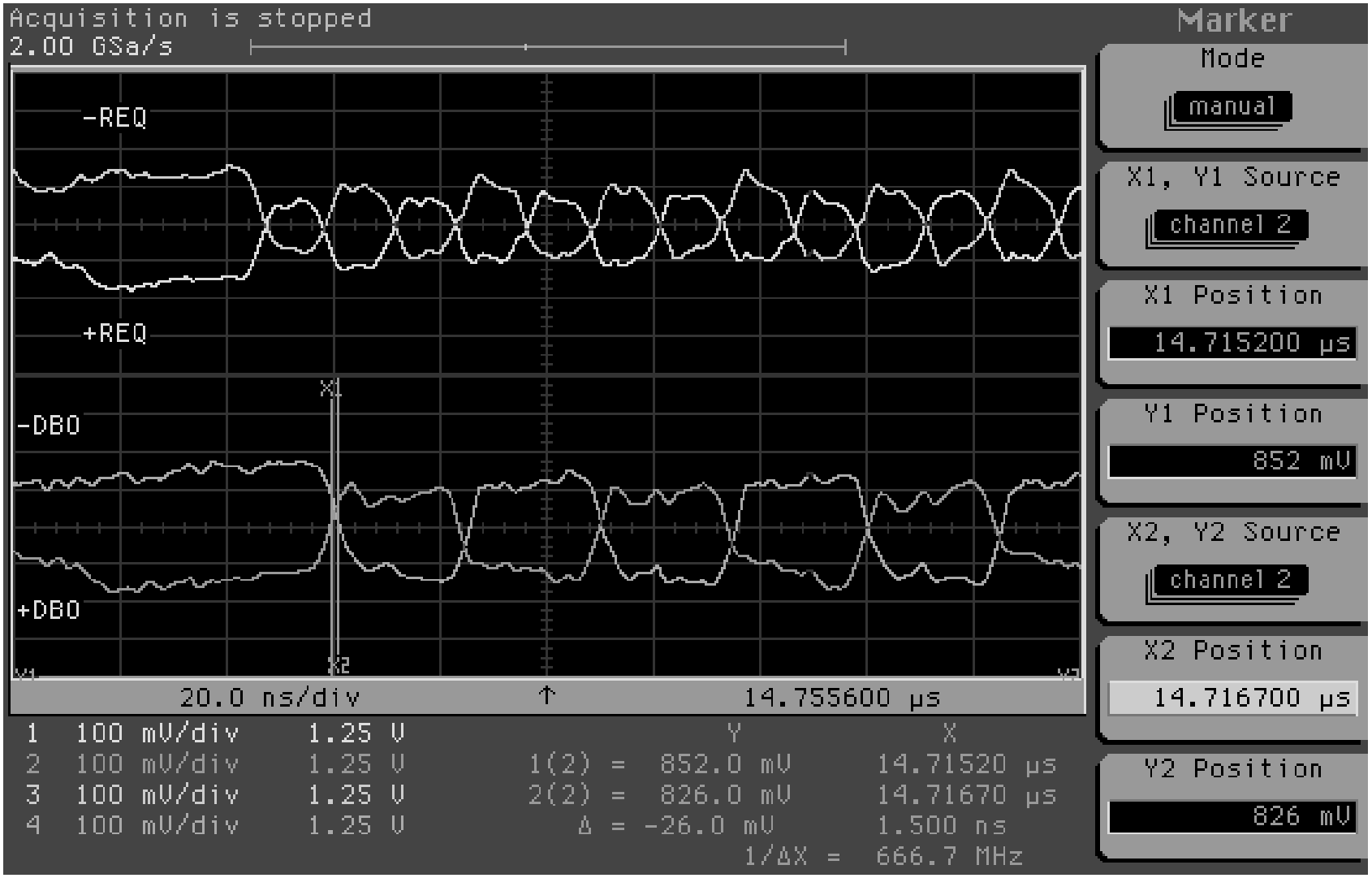
Western Digital

WRITE Position C 1.0pF



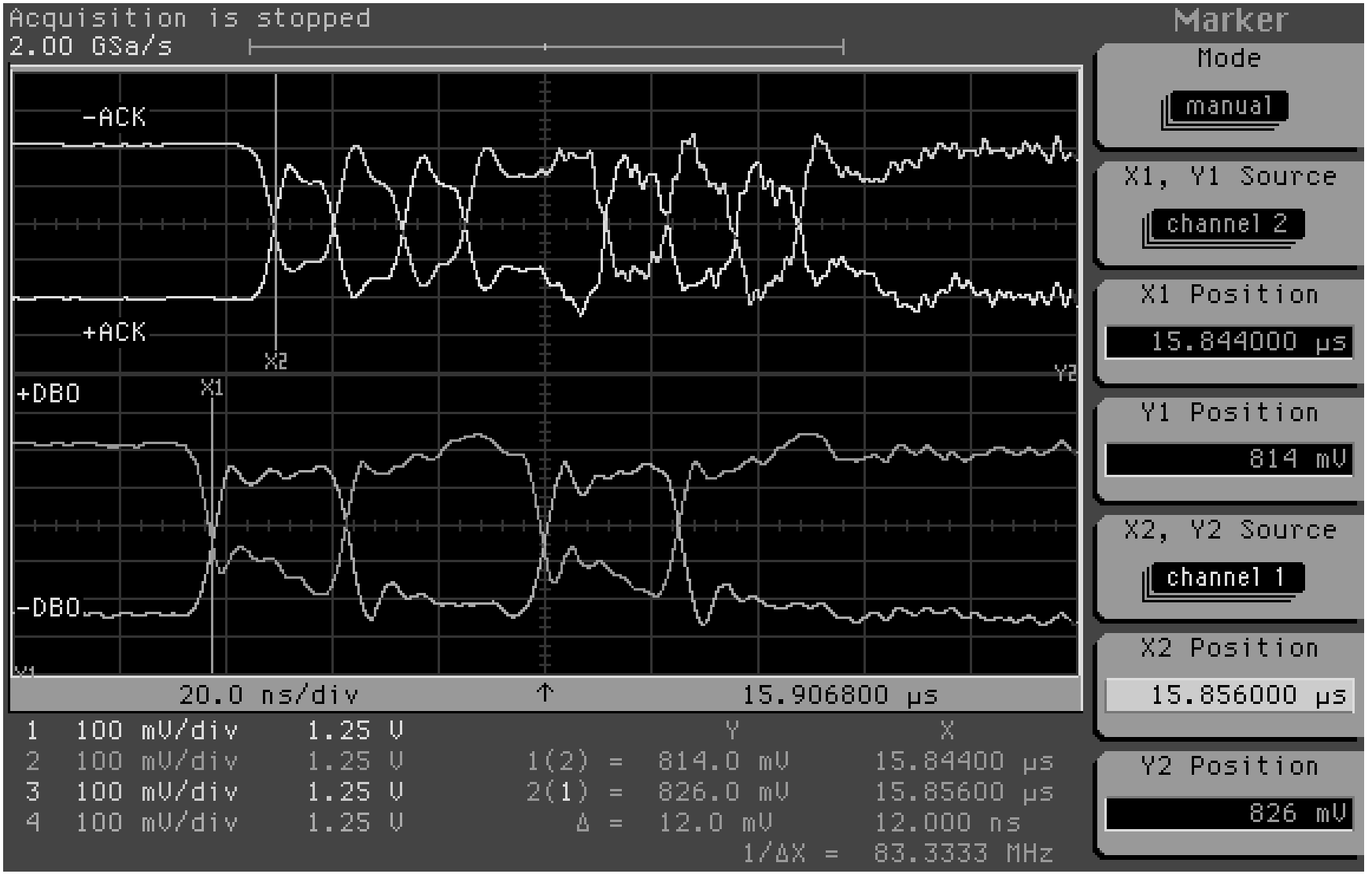
Western Digital

READ Position B 2.0pF



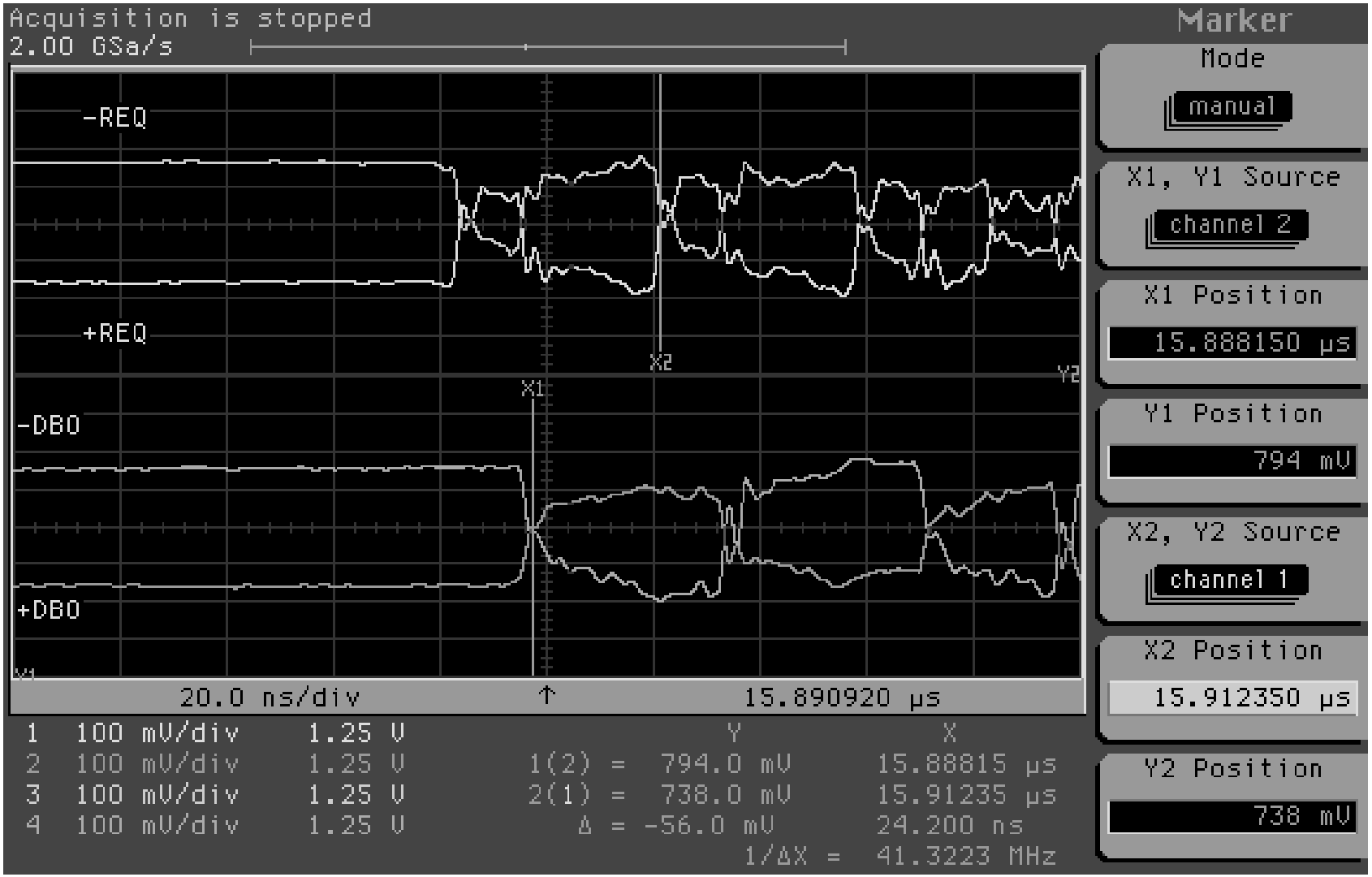
Western Digital

WRITE Position B 2.0pF



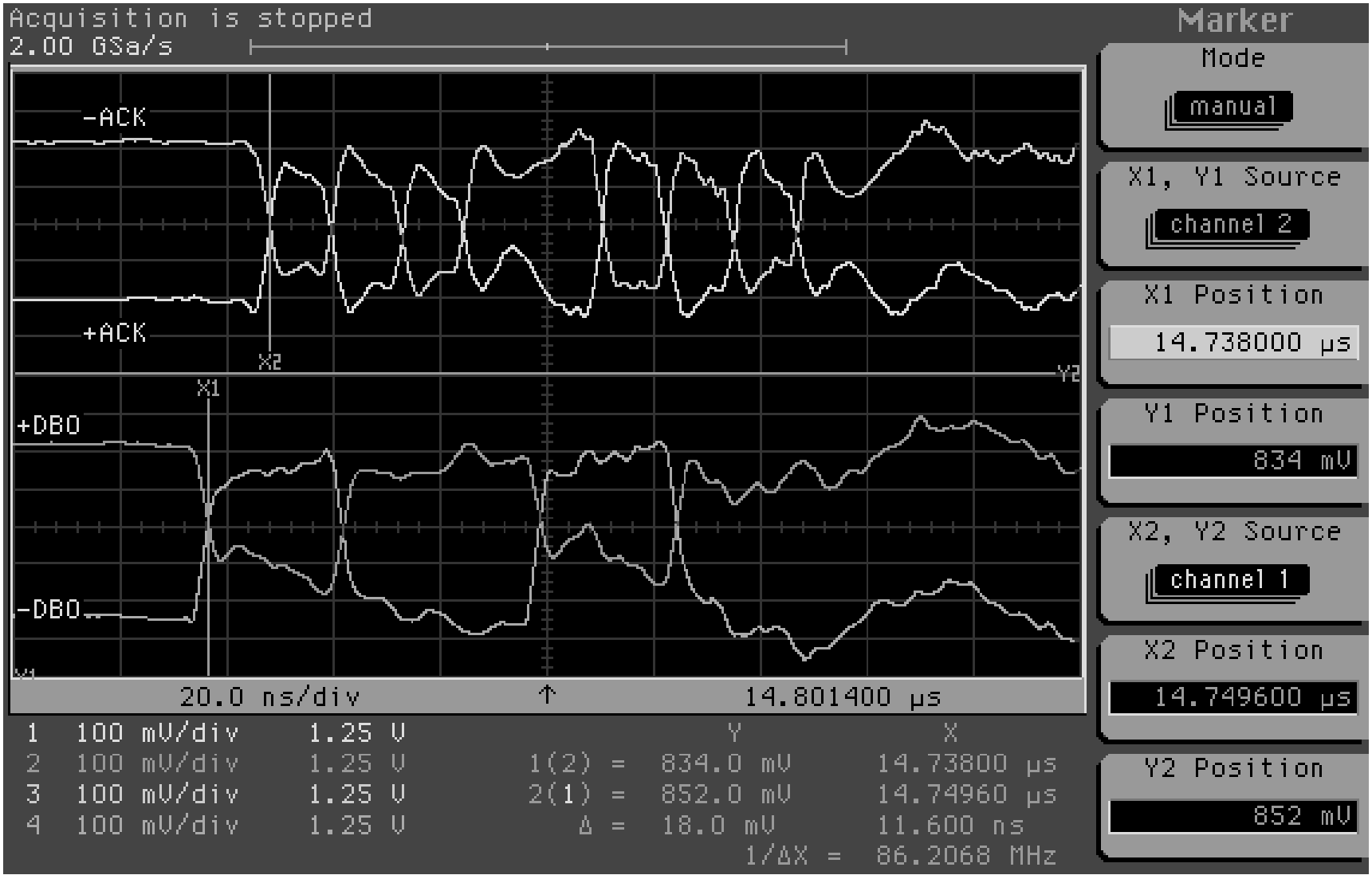
Western Digital

READ Position C 2.0pF



Western Digital

WRITE Position C 2.0pF



Western Digital