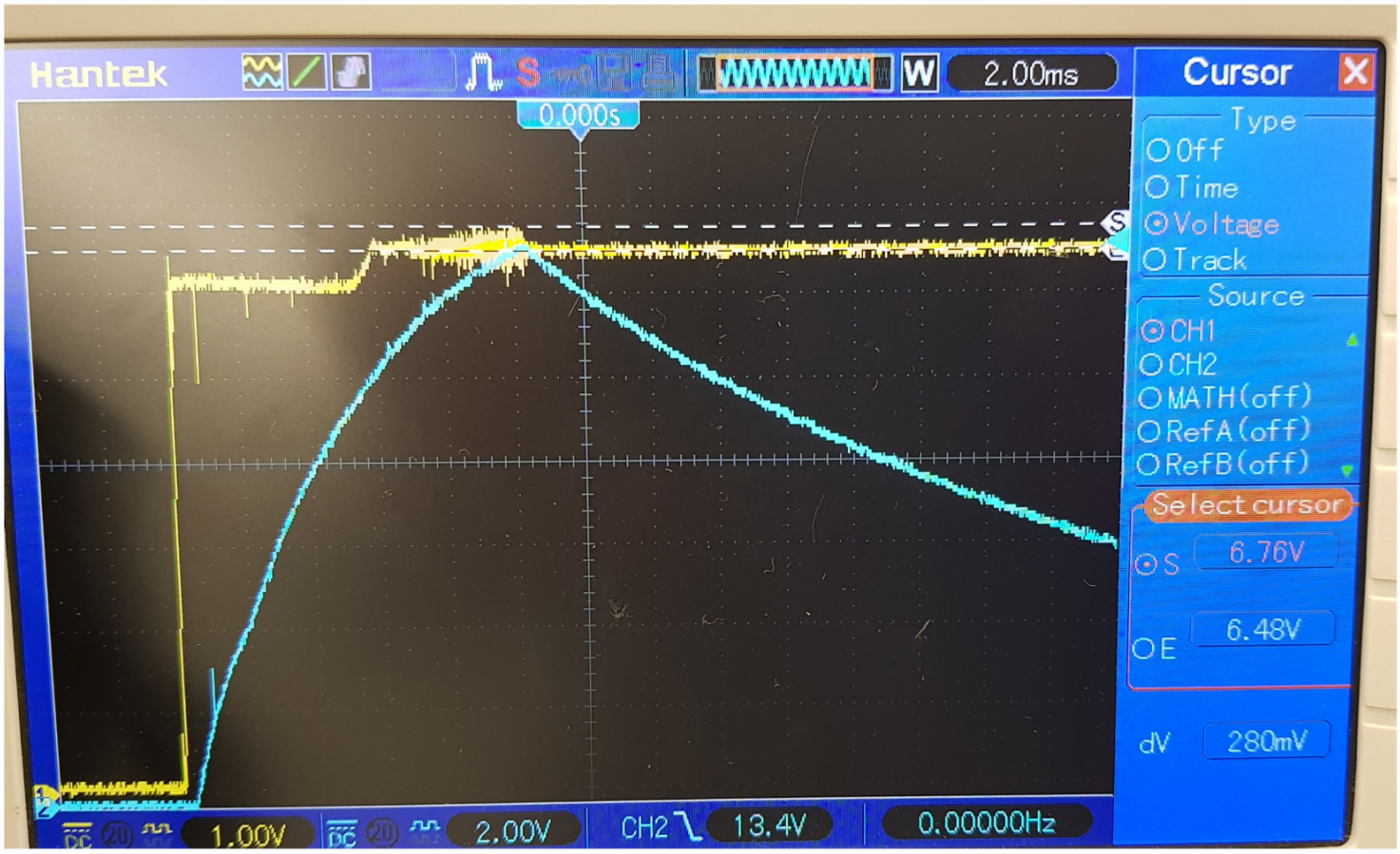
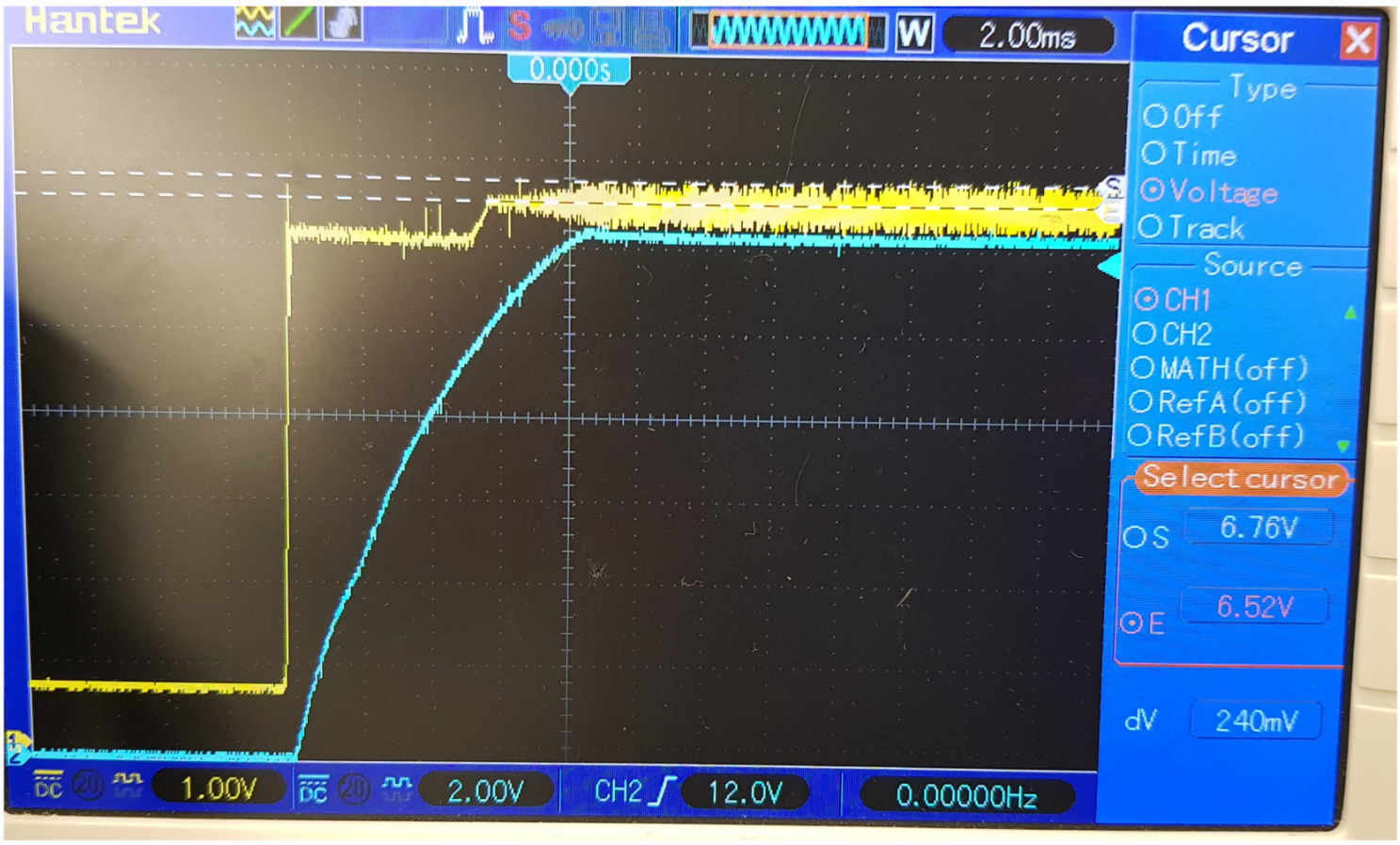
Yellow = V (BP/M, S)
Blue = 12V output

Ref board with ref transformer no output feedback:



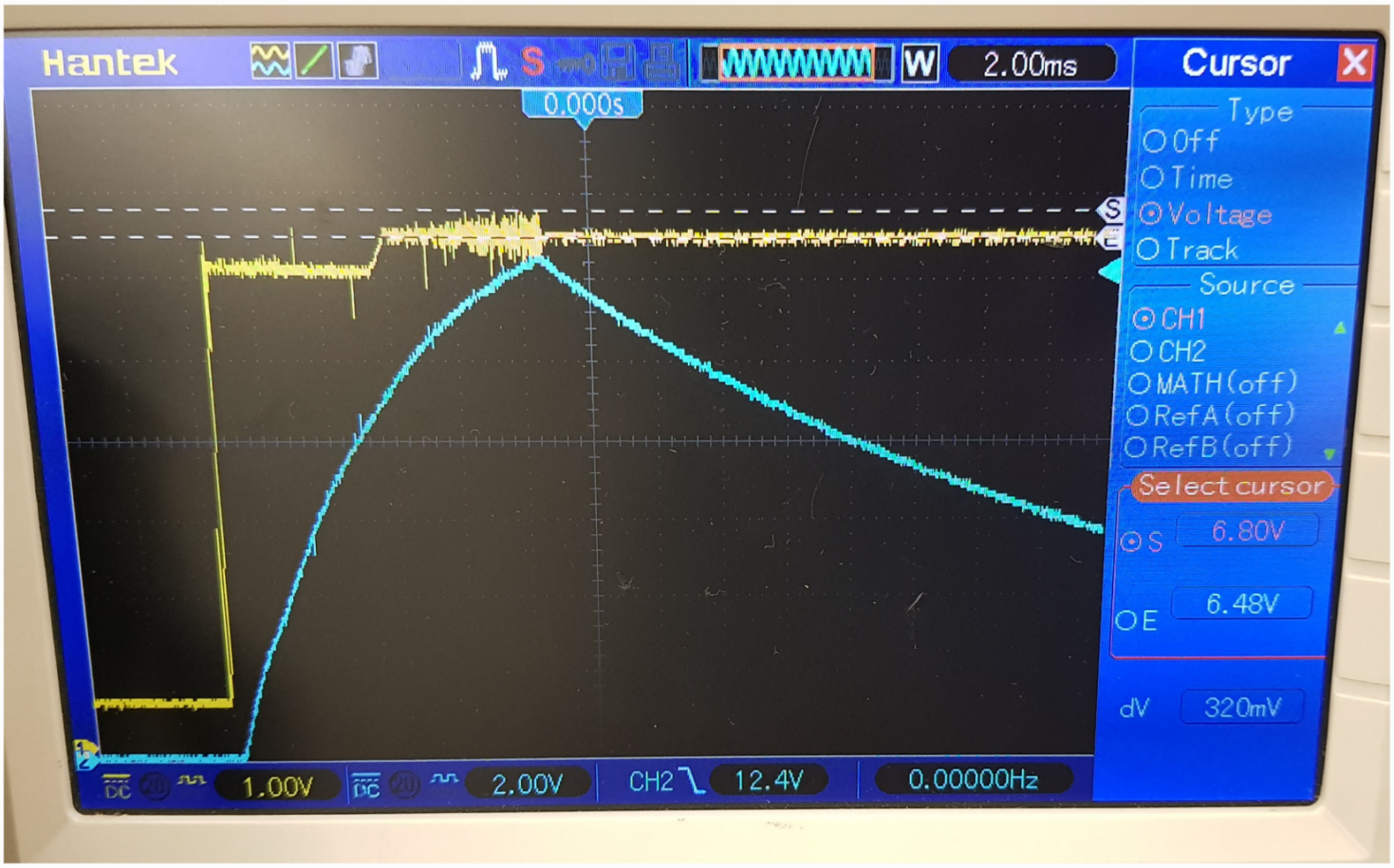
V(BP, S) = 6.1V after boot, and increases to about 6.5V after 6ms. Then signal starts oscillating and when shutdown the voltage settles down at 6.5V.
Peak +12V rail voltage reached 13.4V before OV protection triggered.

Ref board with ref transformer with output feedback:



V(BP, S) = 6.1V after boot, and increases to about 6.5V after 6ms. Then signal starts oscillating and remains in this state.
Peak +12V rail voltage reached 12.5V before output voltage feedback keeps it steady.

Ref board with worst case custom transformer:



V(BP, S) = 6.1V after boot, and increases to about 6.5V after 6ms. Then signal gets a bit noisy and when shutdown the voltage settles down at 6.5V.
Peak +12V rail voltage reached 12.8V before OV protection triggered.

12V line regulated to 12.5V. Same waveform regardless of which transformer is used: