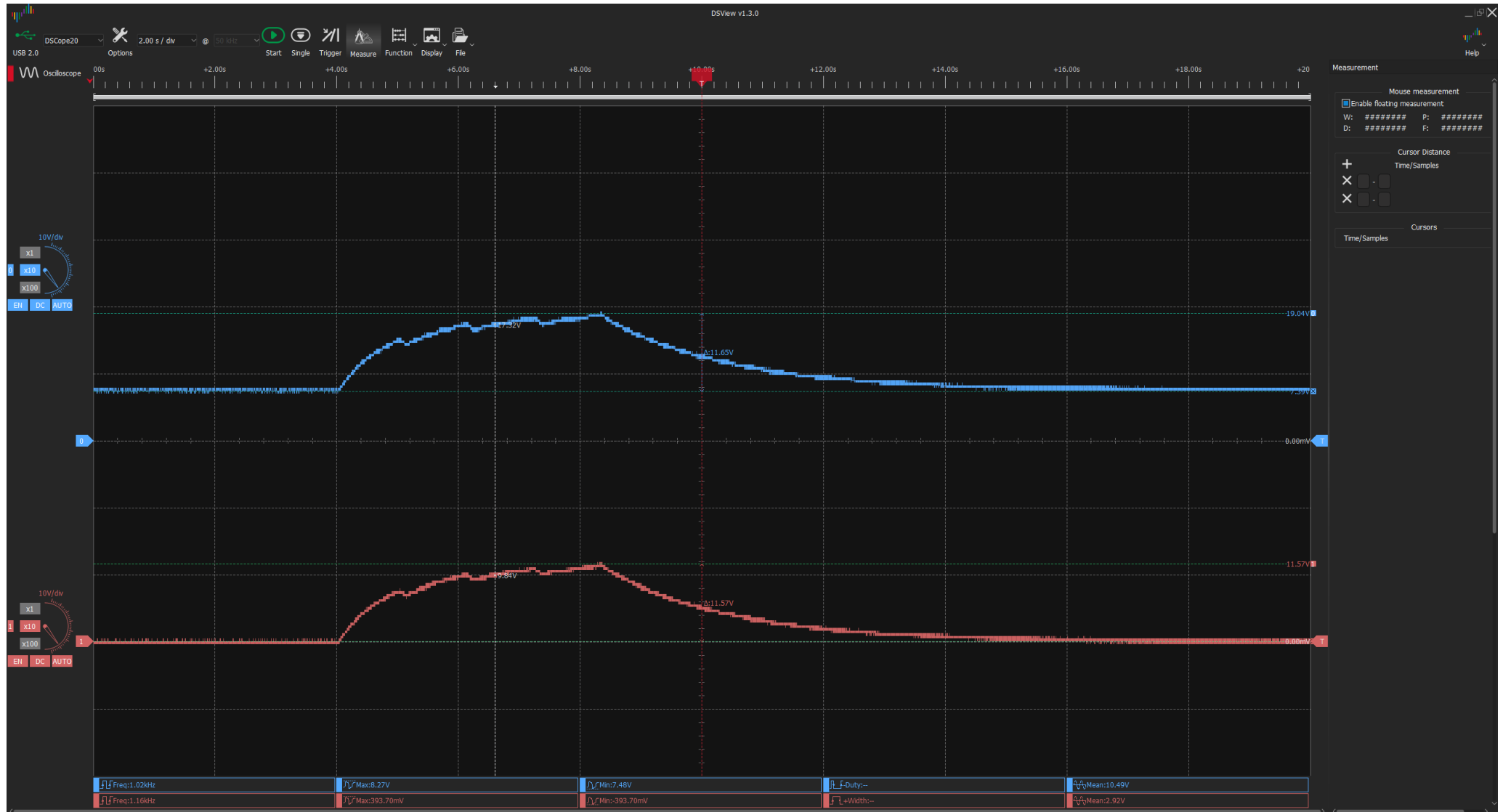


## Measurements for the charge pump:

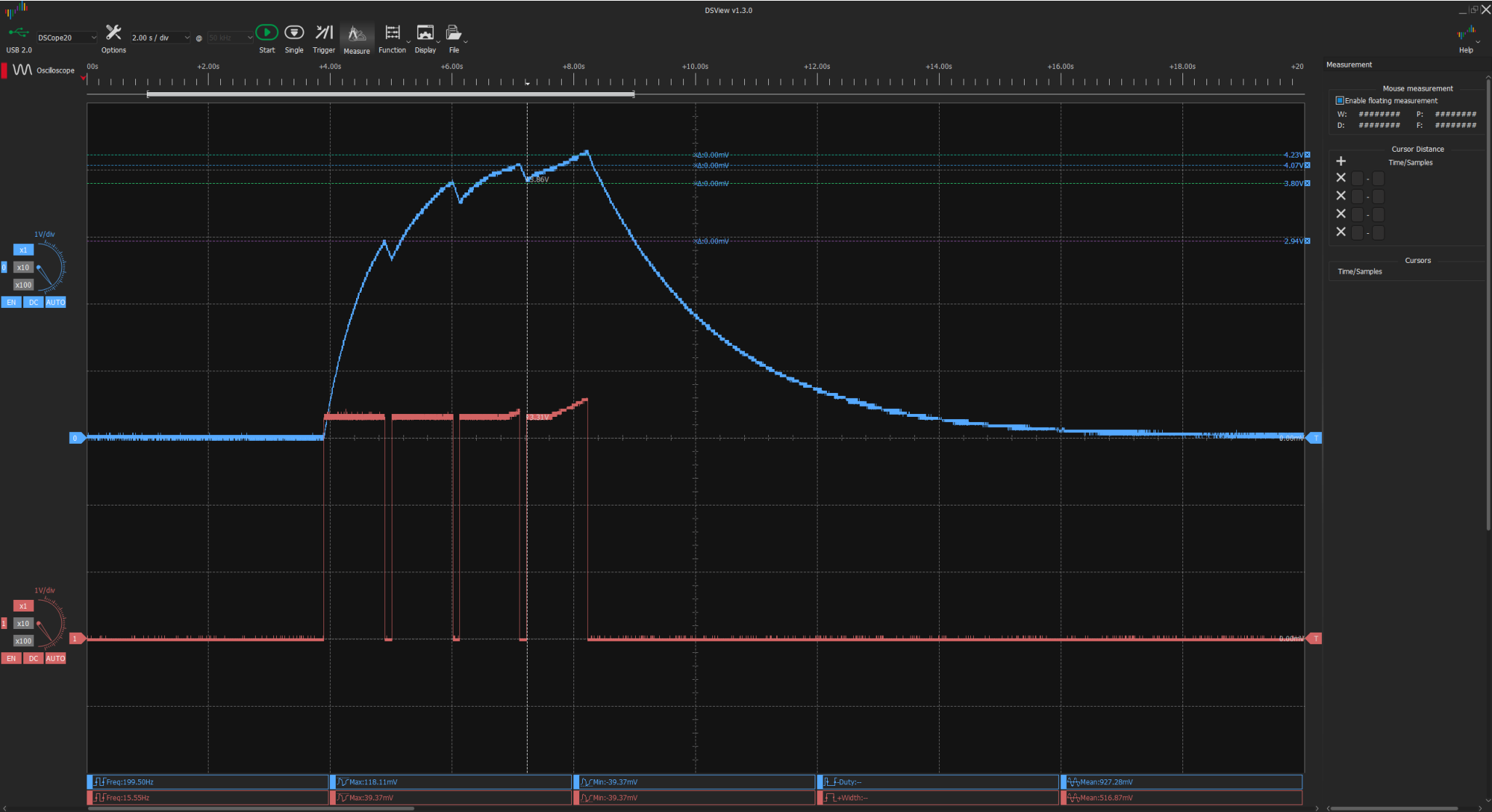
1) Powering-on (battery in) -> Mode „Run“: Channel 0 = capacitor C14\_+, Channel 1 = node D2/R10 (upper point of the voltage divider)



2) Powering-on (battery in) -> Mode „Run“: Channel 0 = capacitor C14\_+, Channel 1 = U1.35 (IROUT) – charge trigger



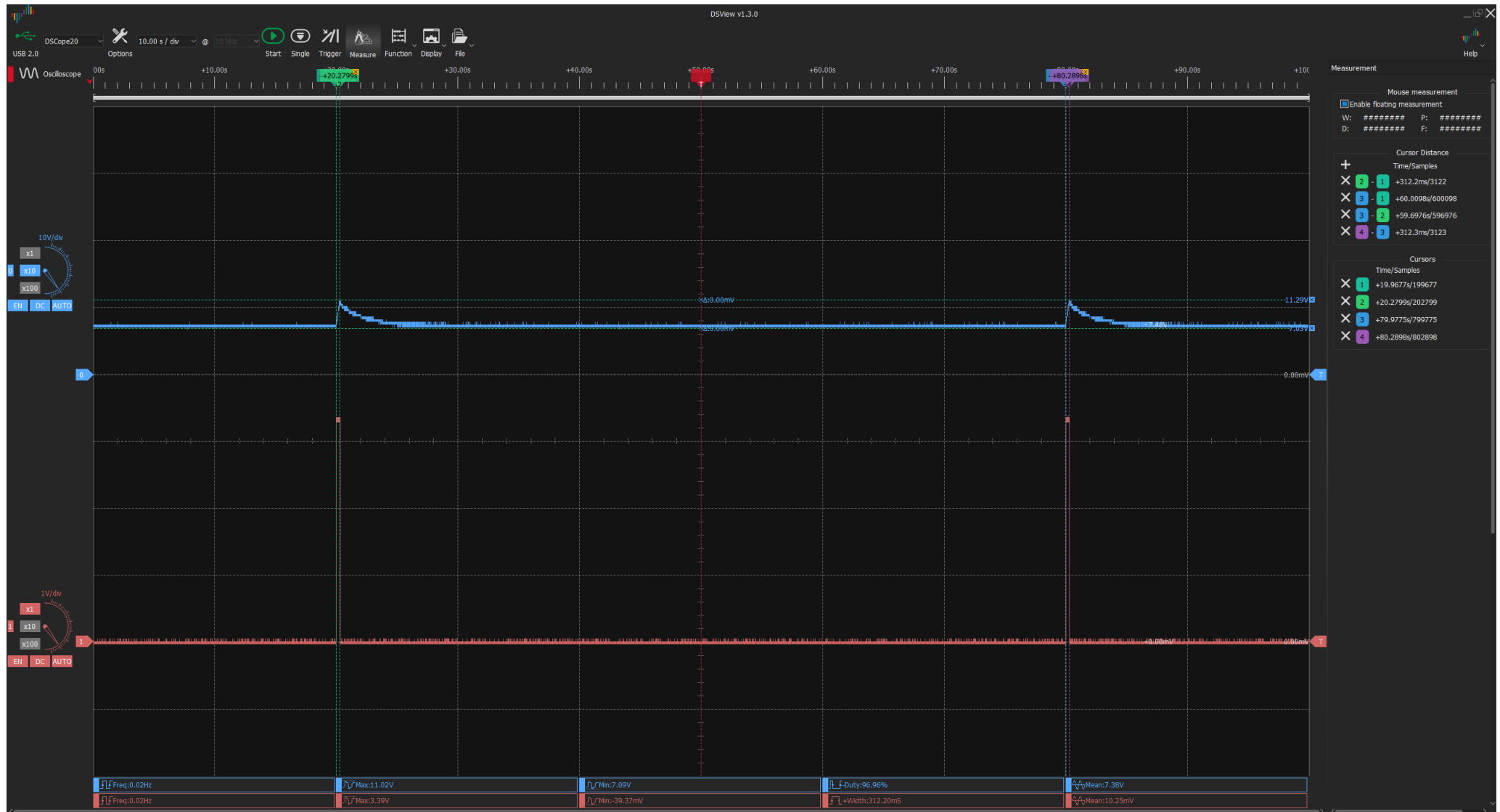
3) Powering-on (battery in) -> Mode „Run“: Channel 0 = U1.34 (TCC), Channel 1 = U1.35 (IROUT)



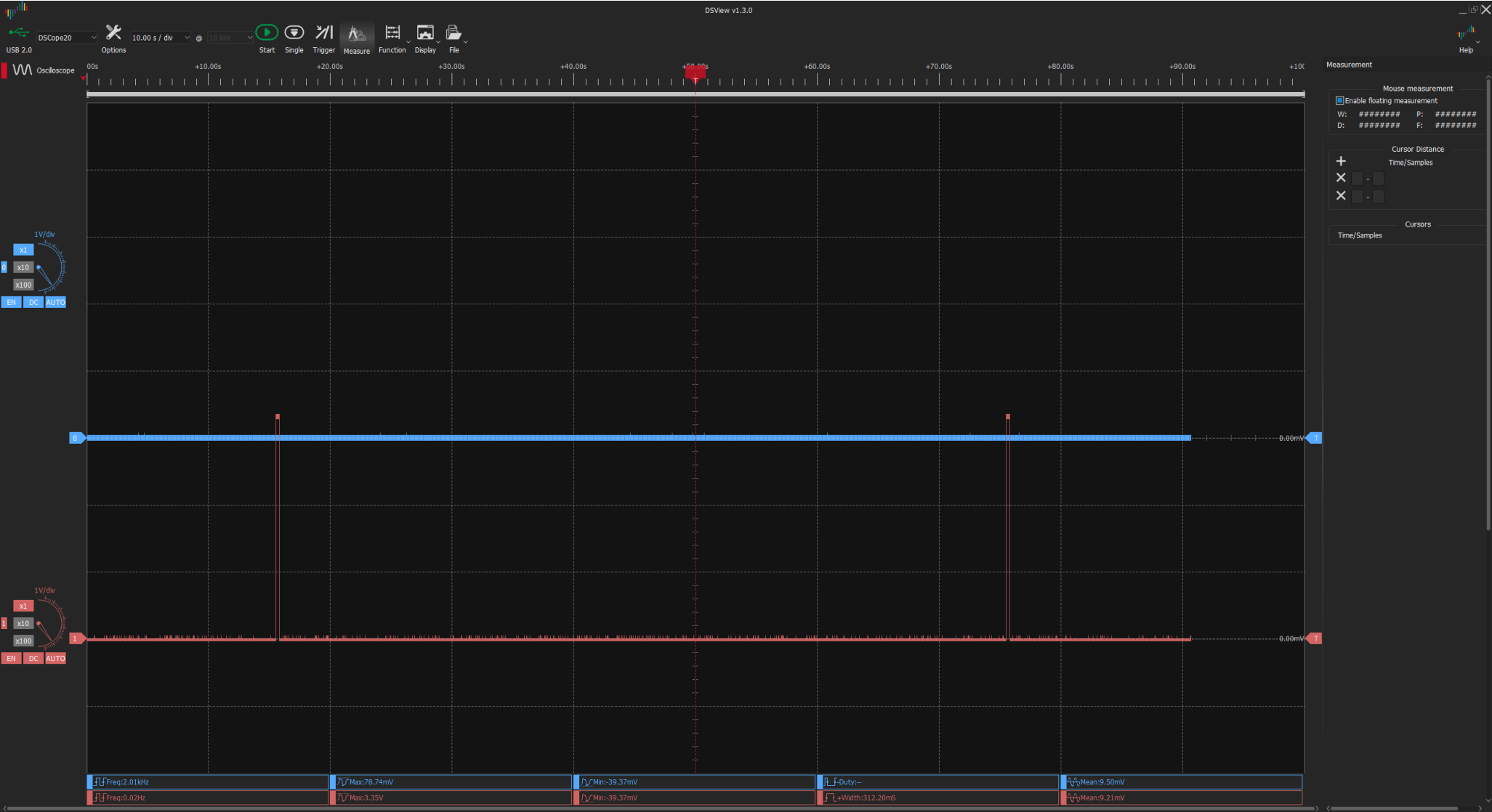
The screenshot displays the DSView v1.3.0 oscilloscope interface. The main display area shows two waveforms: a blue square wave (Channel 0) and a red square wave (Channel 1). The blue waveform has a frequency of 0.90Hz and a peak-to-peak voltage of 9.06V. The red waveform has a frequency of 0.90Hz and a peak-to-peak voltage of 19.29V. The interface includes a top menu bar with options like Start, Single, Trigger, Measure, Function, Display, and File. A right sidebar shows measurement data and cursor positions. The bottom status bar displays various parameters like frequency, voltage, and duty cycle.

**Measurements for manual valve switching:** („Run“ Mode, Select Valve 1, manual duration = 1 minute)

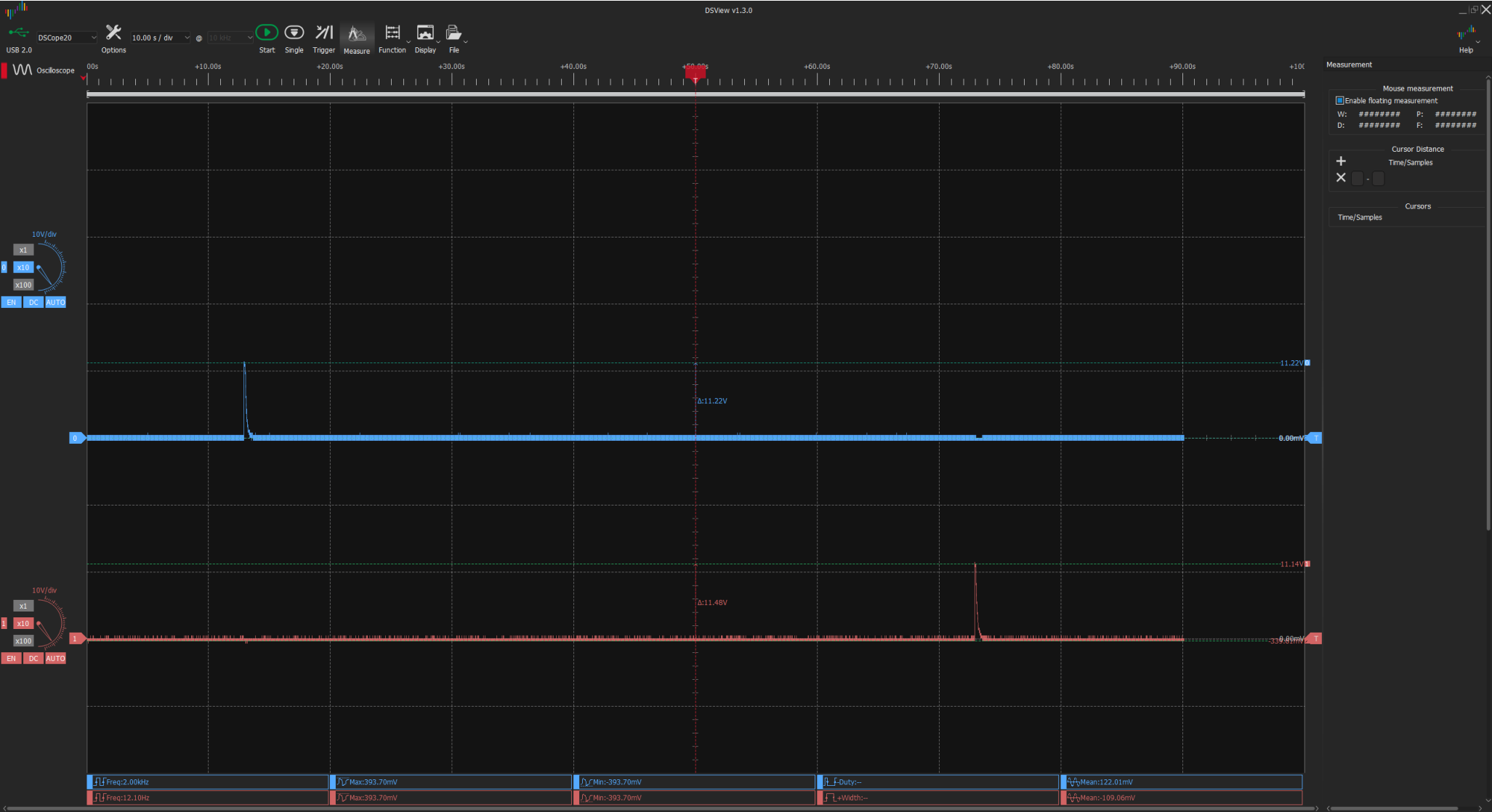
5) On-Off for 1 minute: Channel 0 = capacitor C14\_+, Channel 1 = U1.35 (IROUT)



6) On-Off for 1 minute: Channel 0 = U1.34 (TCC), Channel 1 = U1.35 (IROUT)



7) On-Off for 1 minute: Channel 0 = Valve1.Open (O1), Channel 1 = Valve1.Close (C1)



8) On-Off for 1 minute: Channel 0 = U1.42 (VALVE1\_O), Channel 1 = Valve1.Open (O1)

