



Jaan, 22 décembre 2021

Calibration CH05 (WAB1) vs CH04 (WAB2)

Receiver PolaRx5TR-4701501

In this report, we describe shortly how the calibration of the new receiver CH05 (PolaRx5TR-4701501) has been made.

1 Instruments

DUT: CH05 WAB1, receiver PolaRx5TR-4701501
REF: CH04 WAB2, receiver PolaRx5TR-3021141

2 Protocol

The REF DLY and CAB DLY of DUT have been measured to be, respectively, 9.2 ns and 220.0 ns.

INT DLY P1 and P2 have been set to 0.

With this set of parameters, 2 days of measurement have been made in order to have 2 CGGTTS files for DUT and REF.

Using common view, we can determine the values P1 and P2 of the DUT.

3 Results

Data are analysis with mathematica notebook and the main results are showing figure 1.

As the values of P1(DUT) and P2(DUT) have been set to 0. The common view values are supposed to be the new values of P1(DUT) and P2(DUT).

We find $P1=25.7\pm 0.7$ ns and $P2=24.4\pm 0.6$ ns.

The files used to the calibration are: GZCH0459.566 and GZCH0459.567 for the REF. GZCH0559.566 and GZCH0559.567 for the DUT.

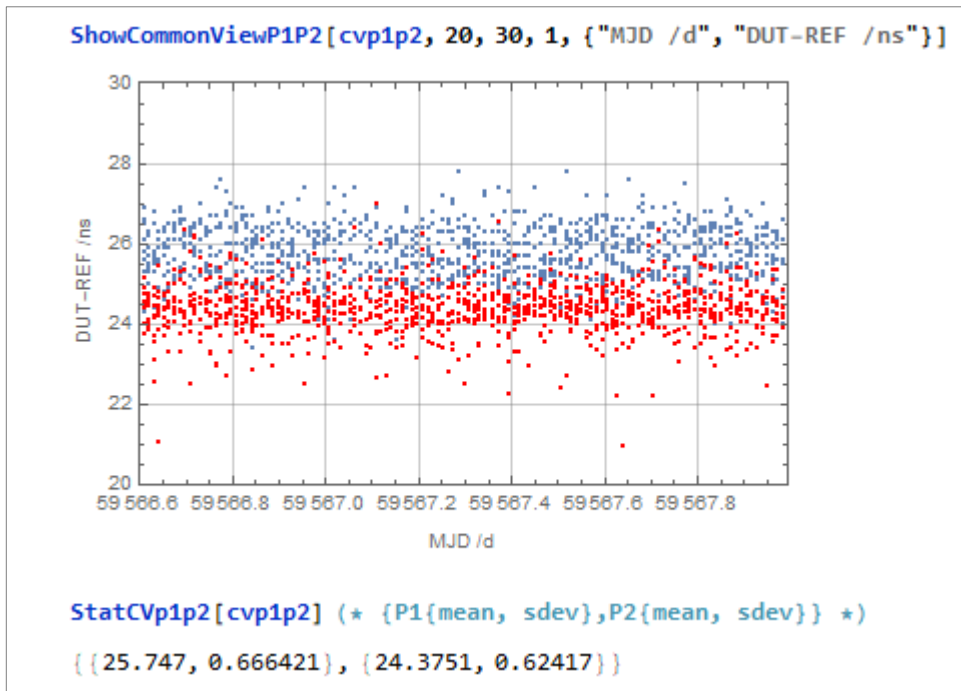


Figure 1: P1 and P2 values via common view

4 Verification

After the new values of P1(DUT) and P2(DUT) have been set, we made a new measurement of 24h.

The common view comparison with REF gives the following values:

(common view)P1=0.0±0.7 ns

(common view)P2=0.0±0.6 ns

(common view)P3=0.1±1.8 ns

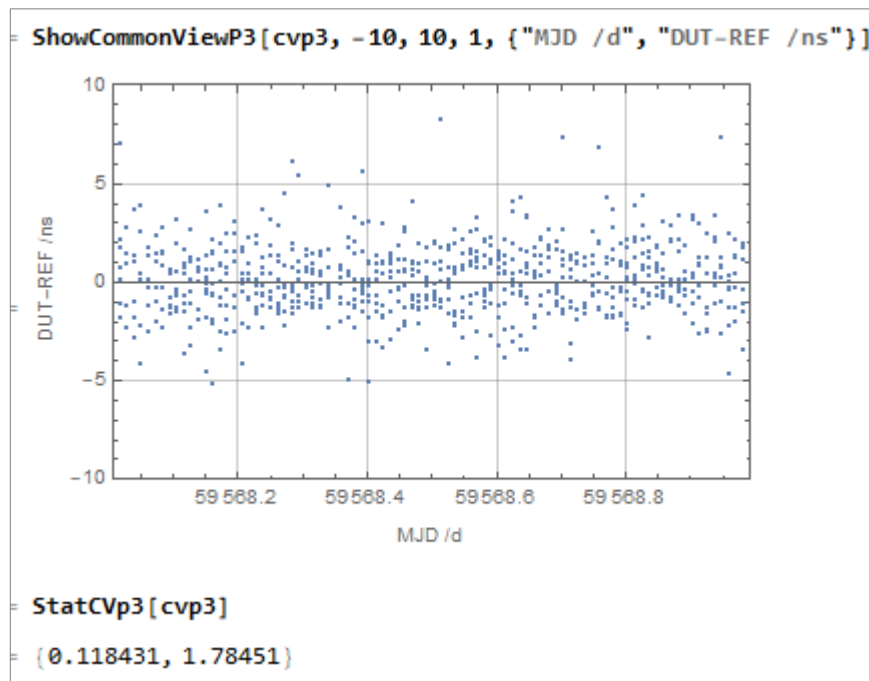


Figure 2: Result of the common view value of P3 after calibration of DUT

The files used to the verification are: GZCH0459.568 for the REF and GZCH0559.568 for the DUT.