



Yellow: FG Signal, Blue: Laser pulse

Laser (with reflective mark on the rotor) and FG signal (from DRV10983) are having exactly the same frequency of 34.4Hz. Converted to Speed (\*60), this is 2064RPM.

My hand laser for RPM measurement is also saying 2064RPM.

The speed register of the DRV10983 is giving a constant value of 0x2d8, what means 0d728. According to the datasheet, this is a frequency of 72.8Hz, what means 2184RPM.

If we take the a.m. Laser measurement as the true value, this makes a difference of 120RPM and +5.8%.

The period register has a value of 0x596, what means 1430, converted: 14.30ms. That means 69.9Hz and so : 2097RPM. Difference is 33RPM and +1.5%.

The FG signal has for sure some jitter, but it is synchronous to the rotor. That is something I can live with. Averaging filter will help here.

But registers having constantly a variable positive offset are useless. No algorithm I know will give me a usable value from that source :-)

I hope this helps, best regards,

Martin.