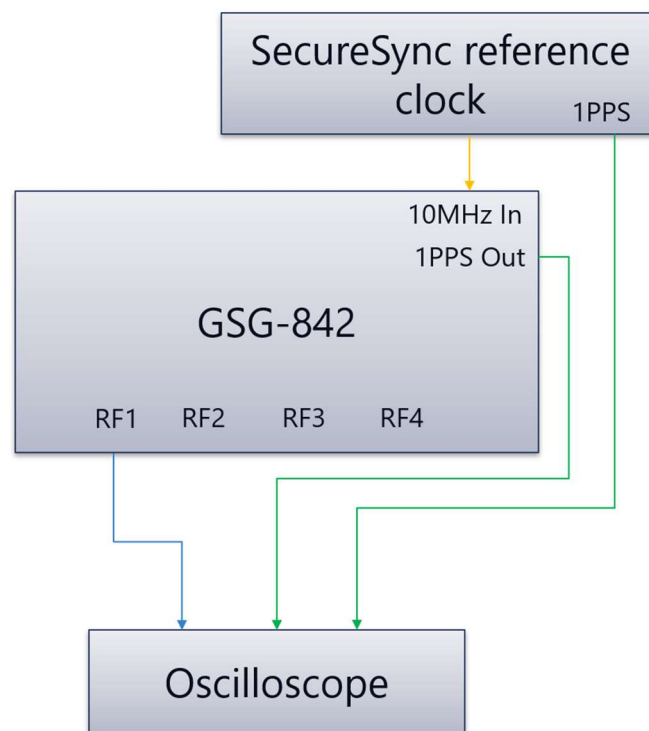


# Measurement report

DATE: 20/Dec/2023 – REF SYN23700

## GSG-8 – RF signal vs PPS latency:

This measurement has been made following the application note dedicated to the timing calibration: <https://safran-navigation-timing.com/timing-calibration-of-a-gnss-receiver/>.



**Figure 1. Measurement configuration**

SL NO	PART NO.	S/N number	DESCRIPTION OF ITEM
1.	GSG-842	I220318A02	GNSS SIMULATOR – 4 Rf output – Running with SKYDEL software Engine.
2.	SecureSync	5386	REFERENCE CLOCK – providing 10MHz to the GNSS SIMULATOR
3.	Tektronic MSO56	B012663	Mixed signal oscilloscope

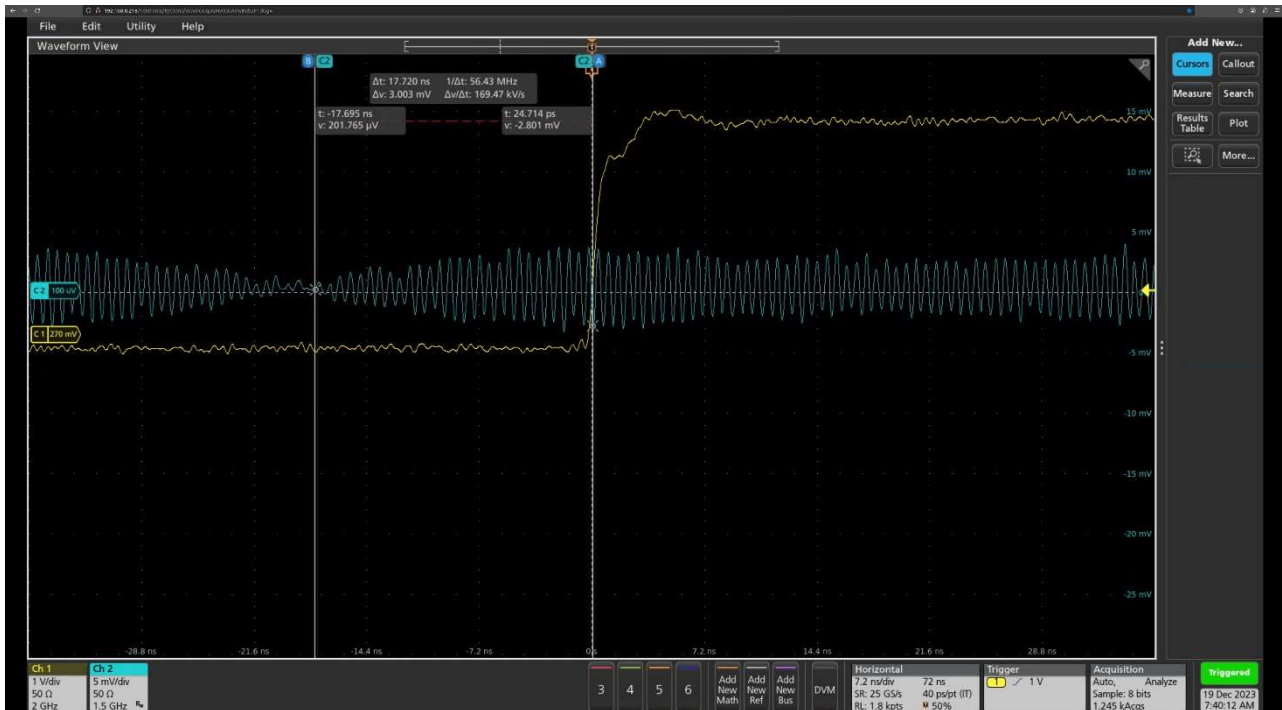


Figure 2. Latency measurement on the oscilloscope (17.720ns)

#### Cable calibration information:

- Cable delay from external clock PPS to oscilloscope: 11.8ns
- Cable delay from RF output to oscilloscope: 4.5ns

Conclusion: the RF signal vs PPS latency of the GSG8 unit (SN: I220318A02) has been measured to 420ps. By building, the GSG8 is compliant with a RFvsPPS latency better than 50ns.