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The RPW Time Domain Sampler (TDS) on Solar Orbiter: In-flight performance and first data

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The Radio and Plasma Wave instrument (RPW) for Solar Orbiter includes a Time Domain Sampler sub-unit (TDS) designed to capture electromagnetic waveform measurements of high-frequency plasma waves and antenna voltage spikes associated with dust impacts. TDS will digitize three components of the electric field and one magnetic component at 524 kHz sampling rate and scan the obtained signal for plasma waves and dust impact signatures. The main science target of TDS are Langmuir waves observed in the solar wind in association with Type II and Type III solar bursts, interplanetary shocks, magnetic holes, and other phenomena. In this poster, we present the scientific data products provided by the TDS instrument and discuss the first data obtained during the commissioning phase. The first data will be used to evaluate the actual performance of the RPW TDS instrument.