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Application of GT668 event timer in Satellite Laser Ranging

Abstract: In the high-frequency satellite laser ranging (SLR) system, the time of flight of a pulse is acquired by a Event Timer (ET) to measure the event epochs of laser transmitted and photon received. In order to put an ET with higher frequency and precision into use, in this paper the GT668 type from Guidetech is introduced into the 1.2m telescope SLR system. By the means of measurement of fixed signals from signal generator, surface target measurement and SLR experiments, it is verified that the GT668 can be applied as the time measuring instrument of the SLR system.