

Modernization of Event Timer RTS 2006

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The Riga Event Timing System (RTS) was designed and built for SLR station Riga in 2006. It was a custom version of A032-ET with additional built-in signal processing module or amplitude to time converter and custom software. Signal processing module measured input pulse amplitudes for range bias correction. This paper discusses design and first results of the new amplitude to time converter TS/ATIC which now is being tested in SLR station Riga. TS/ATIC is designed to address several deficiencies of the original RTS 2006 signal process module such as poor performance with the fast detectors. TS/ATIC can handle signal fronts in range 0.5ns-3ns and offers more flexible measurement setups with or without constant fraction discriminators.