

Liquid Level Detection Using Time Domain Reflectometry Techniques

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ABSTRACT

For Time Domain Reflectometry (TDR), applying in the discontinuity of transmission line, it is a method for detecting the reflected amplitude and delayed time by using time-domain reflective measurement and analysis for calculating both the characteristic impedance variation and physical locations of discontinuities. Time Domain Reflectometry included TDR impulse generator and liquid level detection technique are presented in the thesis. For TDR impulse generator, the narrow pulse with ns duration can be obtained by using Schmitt-trigger and Schmitt-inverter. For practice, the TDR impulse generator is applied for liquid level diction. The liquid level detection can be achieved in this work by the developed 3ns TDR impulse generator. Key Words : Time Domain Reflectometry (TDR), Schmitt trigger

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