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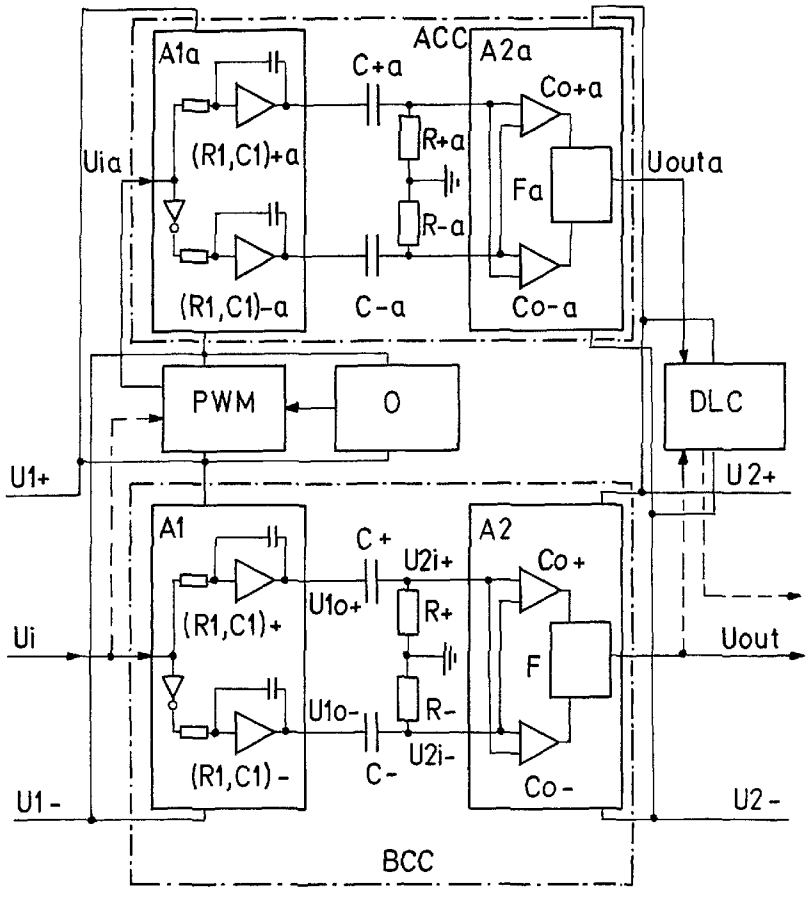
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(54) Title: ISOLATION INTERFACE WITH CAPACITIVE BARRIER AND METHOD FOR TRANSMITTING A SIGNAL BY MEANS OF SUCH ISOLATION INTERFACE



(57) Abstract: A transmission of a signal through an isolation interface with a capacitive barrier is performed so that in an input circuit of the interface by integrating with an appropriate time constant the slope rates of the edges of signal replicas U1o± of the transmitted input signal Ui are adjusted and that the said signal replicas are differentiated either in an appropriate differentiating unit, whereat the time constants of these differentiating units are shorter than the rising and falling-off times of the signal replicas and are advantageously in the order of magnitude of 1 nanosecond or below. Therefore, in a circuit on the output side of the capacitive barrier no amplifier in front of voltage comparators is needed, which makes it possible that the pulse width is maintained extremely precisely. The data transmission is immune from the fast variation in the order of magnitude of 10 kV/μs of the potential difference between the voltage supplying sources for the input and the output circuits. By the invention a digital data transmission up to the frequency of 100 MHz is rendered possible.

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