

The proposed universal optoelectronic NOR logic element contains n photodiodes, a resistor, a power source, n output lightguides, and a light-emitting diode with modulation of optical radiation. The anode of the light-emitting diode is connected to the photodiode cathodes and to the first lead of the resistor. The second lead of the resistor is connected to the positive terminal of the power source. The photodiode anodes are connected to the cathode of the light-emitting diode and to the negative terminal of the power source. The optical inputs of the photodiodes are used as the logic inputs of the logic element, and the optical output of the light-emitting diode is used as the logic output of the logic element.