

APPLICATION NOTE 3289

Supervisor IC Indicates Fan Failure

Abstract: A fan is monitored for valid rotation by a single IC. The solution is accurate, reliable, small, and inexpensive.

The brushless DC fans found in many types of equipment can be crucial to the performance and longevity of that equipment. A quick indication of fan failure, moreover, can be essential in preventing major damage. Among the many approaches for identifying and indicating stalled fans, the circuit of **Figure 1** is very simple and reliable.

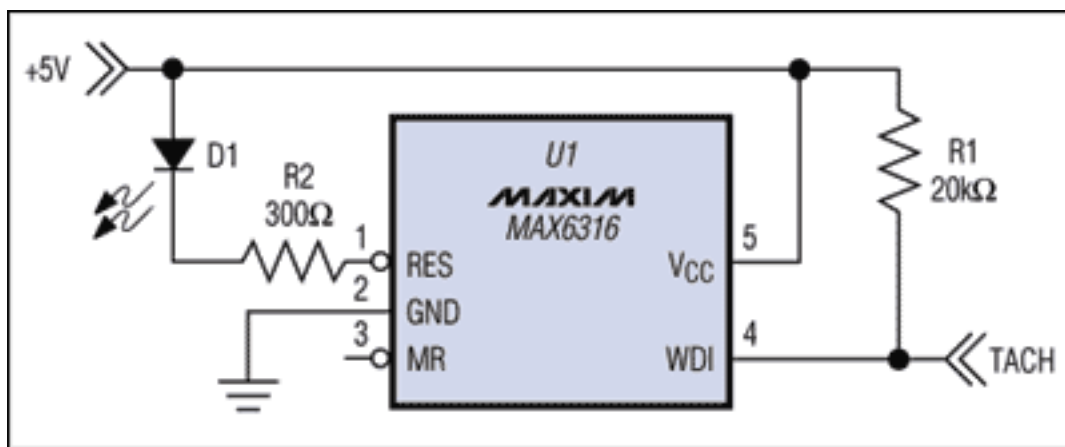


Figure 1. The MAX6316 μ P supervisor monitors a fan's tachometer output.

The fan's tachometer output connects to the watchdog input of a μ P supervisor (U1). The LED remains off during normal operation. If the tachometer does not change state within a watchdog timeout period, U1 lights the LED by asserting its reset output. As a result, the LED pulses on and off as the supervisor goes through its watchdog/reset cycle. The LED in this example has a 200ms on-time and flashes with a period of 1.6s, which is suitable for most purposes.

A similar article appeared in the November, 2003 issue of *EET*.

Application Note 3289: <http://www.maxim-ic.com/an3289>

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Related Parts

MAX6316: [QuickView](#) -- [Full \(PDF\) Data Sheet](#) -- [Free Samples](#)

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