

AS1916 - AS1918 Microprocessor Supervisory Circuits with Manual Reset and Watchdog

Product Brief

1 General Description

The AS1916 - AS1918 microprocessor supervisory circuits were designed to generate a reset when the monitored supply voltage falls below a factory-trimmed threshold. The reset remains asserted for a minimum timeout period after the supply voltage stabilizes.

Guaranteed to be in the correct state for Vcc higher than +1.0V, these devices are ideal for portable and battery-powered systems with strict monitoring requirements.

The devices feature factory-trimmed thresholds to monitor a supply voltage between 1.8 and 3.6V.

The devices are available with the reset output types listed in [Table 1](#).

Table 1. Standard Products

Model	Reset Output Type
AS1916	Active-Low Push/Pull
AS1917	Active-High Push/Pull
AS1918	Active-Low Open-Drain

The AS1916 - AS1918 include a manual-reset input for systems that never fully power down the microprocessor.

Additionally, these devices feature a watchdog timer to help ensure that the processor is operating within proper code boundaries.

The AS1916 - AS1918 are available in a 5-pin SOT23 package.

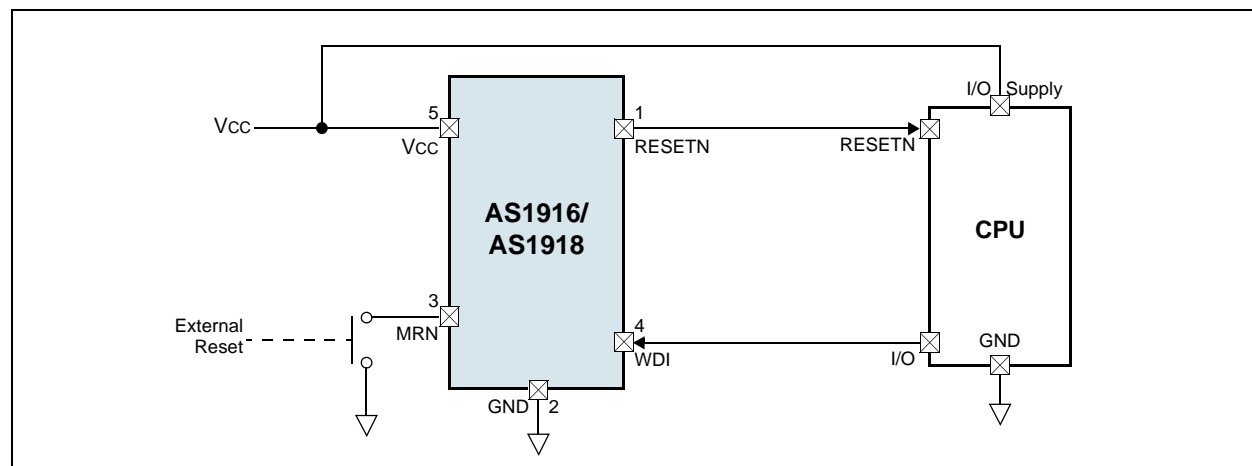
2 Key Features

- Vcc Supervisory Range: +1.8 to +3.6V
- Guaranteed Reset Valid Down to Vcc = +1.0V
- Reset Timeout Delay: 215ms
- Manual Reset Input
- Three Reset Output Types
 - Active-Low Push/Pull (AS1916)
 - Active-High Push/Pull (AS1917)
 - Active-Low Open-Drain (AS1918)
- Watchdog Timeout Period: 1.5s
- Immune to Fast Negative Vcc Transients
- External Components Not Required
- Operating Temperature Range: -40 to +125°C
- 5-pin SOT23 Package

3 Applications

The devices are ideal for portable and battery-powered systems, embedded controllers, intelligent instruments, automotive systems, and critical CPU monitoring applications.

Figure 1. Typical Application Diagram



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