NCV76124

Rain and Light Sensor Interface with SPI

Product Overview

For complete documentation, see the data sheet.

The NCV76124 is an interface chip for rain and light detection in automotive applications. It measures external photodiode currents that represent rain and light signals, and transfers the converted signals to a master microcontroller on request via the SPI interface. The rain measurement data can be used to control the rain wipers. The light intensity signals can be used for e.g. brightness control of displays, the headlamp control and others. Thanks to the SPI programmability, one single hardware configuration can support various applications.

Features

- Periodic Measurement of 4 (optionally 5) Light Sensor Signals and of 2 (optionally 1) Rain Sensor Signals with Environmental Light Cancellation Circuitry

- Programmable Gain Trans Impedance Amplifiers for signal measurement

- Watchdog functionality and diagnostic circuitry compliant to ASIL-B

- Configurable Rain Pulse Current Amplitude, Timing and Repetition Rate

- Standby and Sleep Modes with Low Current Consumption

- AECQ100 Qualified and PPAP Capable

- Device Temperature Measurement

Applications

- Rain sensor for wipers
- Ambient light sensor
- Front lighting
- Head-up display

End Products

- Rain-sensitive wipers
- Automated headlight

Part Electrical Specifications

Product	Status	Compilance	Sensor Type	Supply Voltage (V)	ASIL Level	Output Type	Package Type	Case Outline	MSL Type	MSL Temp (°C)	Container Type	Container Qty.
NCV76124MW0R2G	Active	H Pb A P	Photodiode	3.3	Safety Design	SPI	QFNW-24	484AA.PDF	1	260	REEL	2500