

High Accuracy Current and Power Monitor with I²C Compatible Interface

Description

The CAD2726 is a current shunt and power monitor with an I²C interface.

The CAD2726 monitors both shunt voltage drop and bus supply voltage. The device can directly read current in amperes and power in watts, with programmable calibration value, conversion times, and averaging options, combined with an internal multiplier. It supports up to 16 programmable addresses on I²C interface.

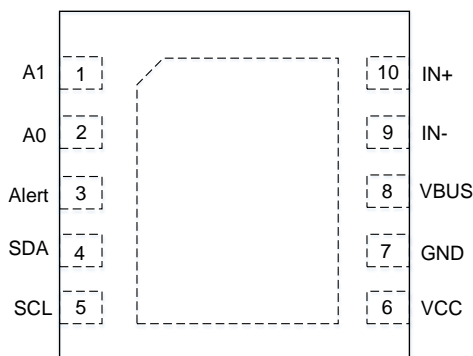
Features

- Operating Voltage: 2.7V to 5.5V
- Bus Voltage (Input Voltage): 0V to 36 V
- 16-Bit Delta-Sigma ADC
- Reports Current, Voltage, and Power
- Programmable Calibration Value, Conversion times, and Averaging Options
- High Accuracy:
 - 0.1 % Gain Error (Max.)
 - 10 μ V Offset (Max.)
- Compatible with SMBus and I²C interface
- I²C Speed up to 2.94MHz (High-Speed Mode)
- Noise Filter on SCL/SDA inputs
- 16 Programmable Addresses
- Operating temperature Range: -40°C to 125°C
- Available Package: DFN3x3-10, MSOP-10

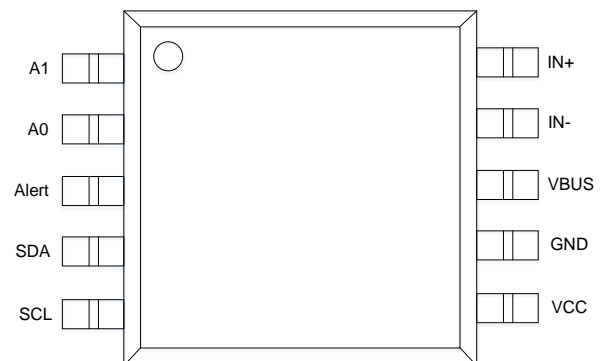
Application

- Server
- Telecom equipment
- Notebook Computers
- Power Management
- Battery Chargers
- Power Supplies
- Test Equipment

PIN Configurations (Top View)



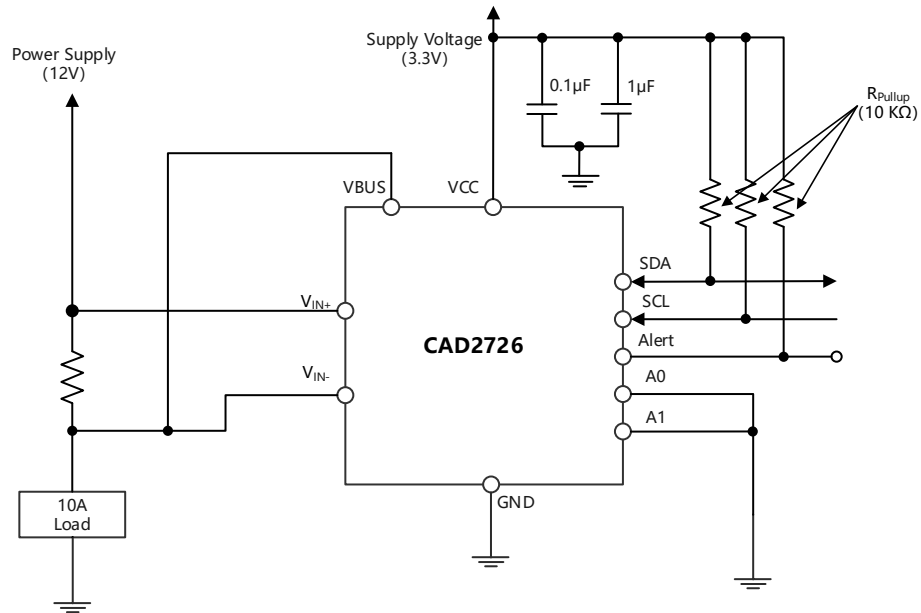
DFN3X3-10(Package code DN)



MSOP-10(Package Code MM)

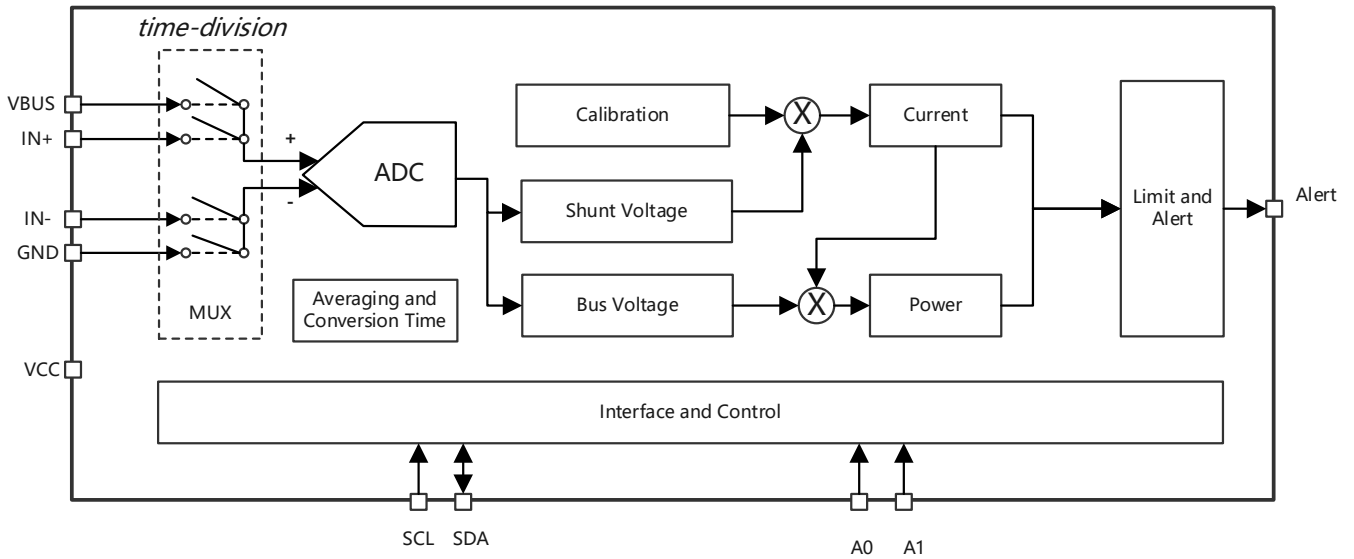
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Typical Application



Pin Description

PIN Name	PIN No.	Type	Description
A1	1	Digital Input	Address pin. Connect to GND, SCL, SDA, or VCC.
A0	2	Digital Input	Address pin. Connect to GND, SCL, SDA, or VCC.
Alert	3	Digital Output	Multi-functional alert, open-drain output. Can be floated.
SDA	4	Digital I/O	Serial bus data line, open-drain output & input.
SCL	5	Digital Input	Serial bus clock line.
VCC	6	Power	Power supply, 2.7V to 5.5 V.
GND	7	Ground	Ground.
VBUS	8	Analog Input	Bus voltage input.
IN-	9	Analog Input	Connect to load side if shunt resistor.
IN+	10	Analog Input	Connect to supply side of shunt resistor.

High Accuracy Current and Power Monitor with I²C Compatible Interface
Function Block

Function Block Diagram
Ordering Information

CAD2726 X X
└───┬───┘ └───┬───┘
Package Type Packing
 DN: DFN3x3-10 R: Tape & Reel
 MM: MSOP-10

Order PN	Green	Package	Marking ID	Packing	MPQ	Operation Temperature
CAD2726DNR	Halogen free	DFN3x3-10	2726 YWWAXX	Tape & Reel	3,000	-40°C~+125°C
CAD2726MMR	Halogen free	MSOP-10	2726 YWWAXX	Tape & Reel	3,000	-40°C~+125°C



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