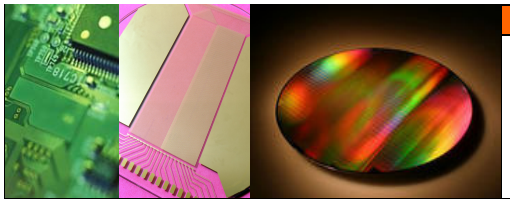


Description

MR74038 – Temperature Sensor
65nm Temperature Sensor with Digital Output

Part Number:
MR74038

Features:
12 Bit digital output
Small area
Low power
1.8V Supply
Power Down

Technology:
TSMC 65nm GP

Deliverables:
GDSII
Abstract
Design Report
Verilog Model

Circuit Status:
Pre-silicon

Design rights:
Moortec Owned

Overview:

The MR74038 is a fully integrated temperature sensor with a 12 Bit digital output designed in the TSMC 65nm GP process

Utilises a 12 bit Sigma Delta ADC for increased precision (0.25ºC)

Temperature measurement range: 0C to 125C

Accuracy: Absolute error: ±1ºC (typical), ±5ºC (max)

Trimmable for higher accuracy (±1ºC)

Supply Range 1.8V ± 10%

Input clock frequency 1MHz (nominal) 2MHz (max).

Fully Integrated: no external components required, ideal for SoC applications

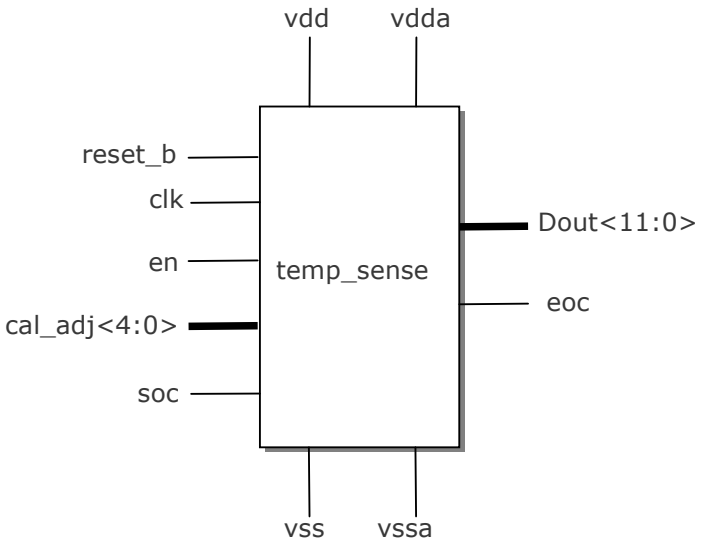
All input/output signals are fully digital enabling simple integration

Optimised for low current consumption: 2uA (10 samples/sec) to 250uA (continuous sampling)

Includes power down facility to enable low power consumption (sleep mode)

Optimised for minimum area: less than 0.1sqmm

Symbol View:



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