

## General Description

The TCS4103 series is a high efficiency synchronous step-down converter featuring typical 360 nA quiescent current. It provides high efficiency at light load down to 10  $\mu$ A. Its input voltage ranges from 2.2 V to 5.5 V and provides eight programmable output voltages between 1.2 V and 3.3 V while delivering output current up to 600 mA, peak to 1 A (TCS4103) / 400mA, peak to 0.5A (TCS4103A).

The Adaptive-Constant-On-Time (ACOT) operation with internal compensation allow the transient response to be optimized over a wide range of loads and output capacitors.

The TCS4103 is available in WLCSP8 (0.9 x1.6 ,0.4 pitch) package.

## Features

- Input Voltage Range : 2.2 V to 5.5 V
- Programmable Output Voltage 8-Level
  - TCS4103 1.2V to 3.3 V
  - TCS4103A 0.7V to 3.1 V
- Typ. 360 nA Quiescent Current
- PFM Operation With Light Load
- Up to 94% Efficiency
- Internal Compensation
- Output Discharge
- Over-Current Protection
- Over-Temperature Protection
- Output Current:
  - TCS4103 600mA, Peak to 1 A
  - TCS4103A 400mA, Peak to 0.5 A
- Automatic Transition to 100% Duty Cycle Operation

## Applications

- Hand-Held Devices
- Portable Information
- Battery Powered Equipment
- Wearable Devices
- Internet of Things