

DC/DC – ULTRA LOW QUIESCENT BUCK

Features

- Low power DC/DC Buck Regulator
- Output current up to 100mA
- Large input voltage range, from 2.4V to 5.5V
- Soft start and over current protection
- Power good comparator and flag
- Programmable output voltage range from 0.60V up to 0.91V, with 10mV steps
- Low noise mode designed to reduce substrate noise with minimum efficiency degradation

Applications

- Headsets
- Digital camera modules
- Wireless communications
- Portable Media Players
- Portable Navigation Devices

Applications Diagram



General Description

SGC62100_01_TSMC_CM018MG

is a fast response, ultra-low quiescent current step down switched DC/DC regulator designed for SoC integration. It is the best supply solution for low power digital cores with fast activity variation (where most regulators fail). The *SGC62100_01_TSMC_CM018MG* offers soft start-up, instantaneous over current protection and superb transient response. It includes a novel low noise mode to reduce the substrate noise, generated during switching, with minimum efficiency degradation, making it ideal for noise sensitive applications. Being specified from $T_J = -40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$, the *SGC62100_01_TSMC_CM018MG* is designed to achieve 3% overall accuracy (over Load / Line / Temp). It can be found as an isolated IP or integrated into PMUs (as for example in *SGCPMU_01_TSMC_CM018MG*).

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_{IN}	Input Sup.	2.4	—	5.5	V
V_{DVDD}	Digital Sup.	1.4	—	2.0	V
V_O	Out Voltage	0.60	—	0.91	V
I_O	Out Current	0	—	100	mA