

DC/DC – AUDIO GRADE BUCK REGULATOR

Features

- Low power DC/DC Buck Regulator
- Innovative Adaptive Pulse Control solution designed to guarantee low noise while keeping high efficiency
- Optimized for audio applications
- Output current up to 100mA
- Soft start and over current protection
- Power good comparator and flag
- Large input voltage range, from 2.5V to 5.0V
- Programmable output voltage range from 1.26V up to 1.57V, with 10mV steps

Applications

- Headsets
- Audio Applications

Applications Diagram

General Description

SGC63100_1V42_01_TSMC_CM018MG is a fast response, low quiescent current DC/DC regulator designed for *SoC* integration. It offers instantaneous over current protection, soft start-up and superb transient response. Due to its innovative adaptive pulse control design, it is the best solution for audio applications, where low noise is mandatory. The *SGC63100_1V42_01_TSMC_CM018MG* is designed to achieve 3% overall accuracy (over Load / Line / Temp), being specified from $T_J = -20^{\circ}\text{C}$ to $+85^{\circ}\text{C}$. It can be found as an isolated IP or integrated into *PMUs* (as for example in *SGCPMU_02_TSMC_CM018MG*).

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_{IN}	Input Sup.	2.5	—	5.0	V
V_{DVDD}	Digital Sup.	1.4	—	2.0	V
V_O	Out Voltage	1.26	—	1.57	V
I_O	Out Current	0	—	100	mA