

## 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