

PROGRAMMABLE MIC BIAS REGULATOR

Features

- Dual channel low noise Mic Bias with enable
- Soft start and over current protection
- Output current: 5mA
- Large input voltage range, from 2.4V to 5.5V
- Programmable output voltage range, from 1.9V up to 2.25V

Applications

- Headsets
- IoT

Applications Diagram



General Description

SGC23505_01_TSMC_CM018MG

is a dual channel low noise microphone bias generator with high current rating. It offers excellent power supply rejection (*PSRR*), soft start and over current protection. Designed with multi-loop control techniques, the IP presents excellent transient response while maintaining low dropout and low quiescent. The *SGC23505_01_TSMC_CM018MG* is specified from $T_J = -40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ and 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_{AVDD}	Analog Sup.	1.3	—	2.0	V
V_{DVDD}	Digital Sup.	1.4	—	2.0	V
V_O	Out Voltage	1.9	—	2.25	V
I_O	Out Current	0	—	5	mA