

APC – ADVANCED POWER CONTROLLER

Features

- Advanced Power Controller w/ *POR*, *UVLO* and *OVP*
- Large input voltage range, from 1.80V to 5.50V
- *High Power* and *Low Power* operation modes
- Reference voltage up to 10 decoupled outputs
- Up to 10 high power bias current outputs
- Up to 13 low power bias current outputs
- Clock generator
- 4 Reset cause outputs

Applications

- SoC
- IoT

Applications Diagram

General Description

SGC21412_01_GF_22FDSOI is an *Advanced Power Controller (APC)* for integration in SoC. Including all the necessary auxiliary supply, monitoring, protection and *POR* functions, it is the ideal solution for any *IoT Power Management Unit (PMU)*. Offering high power supply rejection (*PSRR*), start-up sequencing and independent voltage reference decoupling, without the need for extra package pins, it is stable without any external decoupling capacitor. Additionally, all generated references include digital trimming bits for increased performance or yield improvement. Designed to achieve 1% overall voltage reference accuracy (over Load / Line / Temp / Process), it is specified from $T_J = -40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$.

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_{IN}	Input Sup.	1.80	—	5.50	V
V_{DVDD}	Digital Sup.	0.50	—	0.90	V
F_{CLK}	Generated Frequency	3.60	4.0	4.40	MHz