

APC – POWER CONTROLLER W/POR

Features

- Advanced Power Controller w/ *Power On Reset*
- Large input voltage range, from 1.60V to 1.98V
- Internal supply regulator
- Level shifter disable signal generation
- V_{ref} with decoupled output
- Bias current output
- External voltage detector w/ *UVLO*

Applications

- SoC

Applications Diagram

General Description

The *SGC21412_04_TSMC_28HPCp* is an Advanced Power Controller for integration in *SoC*. It offers all the necessary auxiliary supply, monitoring and *Power On Reset (POR)* functions, making it the ideal backbone for any *Power Management Unit (PMU)*. The IP is configured for each specific *SoC*, being, in this case, designed to deliver *POR* and *UVLO* functionalities for a temperature and voltage ADC (*SGC24012_01_TSMC_28HPCp*).

The *SGC21412_04_TSMC_28HPCp* generated references include digital trimming bits, for increased performance or yield, being the IP specified from $T_J = -40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$, achieving 1% overall voltage reference accuracy (over Load/Line/Temp/Process).

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_{IN}	Input Sup.	1.60	—	1.98	V
V_{DVDD}	Digital Sup.	0.80	—	1.10	V
V_{REF}	Ref. Voltage	—	750	—	mV