

APC - ADV POWER CONTROLLER W POR

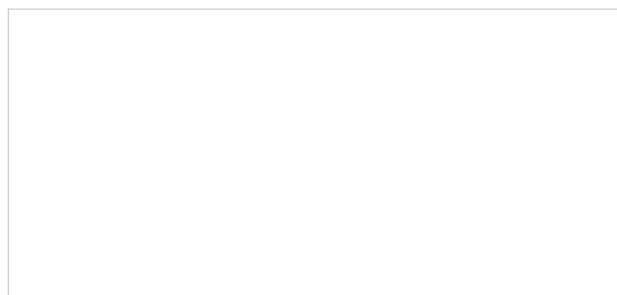
Features

- Advanced Power Controller w/ POR
- Low eco mode IQ: 10 μ A
- Large input voltage range, from 1.08 V to 1.98 V
- Internal supply regulator: vcasn
- Level shifter disable signal generation
- Vref with independently decoupled outputs
- Power-up sequencing controller
- Power Good monitors for 1.2 V, 1.8 V and 3.3 V
- External voltage detector w/ UVLO
- Power-On-Reset
- Core area: 0.276 mm²

Applications

- SoC
- Controllers

Applications Diagram



General Description

POR Power on Reset: The SGC21412_TSMC_16FFC is an Advanced Power Controller for integration in SoC. It is a configurable core, delivering all the necessary auxiliary supply, monitoring, protection and POR functions. The APC is the backbone for a Power Management Unit (PMU). It offers high power rejection (PSRR), start-up sequencing and independent voltage reference decoupling without the need for extra package pins. All generated references include digital trimming for increased performance or yield improvement. The SGC21412_TSMC_FFC does not require any external decoupling capacitor. It is specified from $T_j = -40^{\circ}\text{C}$ to $+125^{\circ}\text{C}$ and is designed to achieve 1% overall voltage reference accuracy (over Load/Line/Temp/Process).

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_i	Input Voltage	1.08	—	1.98	V
V_{DD}	Digital Sup.	0.6	—	1.0	V
V_{REF}	Ref. Voltage	495	500	505	mV
I_{BP1U}	Bias Current	0.7	1.0	1.3	μ A