

SGC21412\_IP007700\_GF\_22FDX

## APC – ADVANCED POWER CONTROLLER

### Features

- Advanced Power Controller w/ POR
- Clock generator
- Power-On-Reset
- Reference voltage with 9 decoupled outputs
- Bias current with 9 outputs
- Power-up sequencing controller
- Multiple Power Good monitors
- External voltage detector w/ UVLO
- Level shifter disable signal generation
- Large input voltage range, from 1.8V to 4.6V

### General Description

SGC21412\_IP007700\_GF\_22FDX 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. Specified from  $T_J = -40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$ , it was designed to achieve 1% overall voltage reference accuracy (over Load / Line / Temp / Process).

### Applications

- SoC

### Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
$V_{IN}$	Input Voltage	1.80	-	4.60	V
$V_{DVDD}$	Digital Voltage	0.70	-	1.20	V
$F_{CLK}$	Generated Frequency	-	4.0	-	MHz