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PRODUCTOUTLINE

SGC21412_R28HPM

APC - Adavanded Power Controller

Features

- Advanced Power Controller w/ POR
- Large input voltage range: 1.6 - 1.98 V
- Low I_Q: 45 µA
- Power-On-Reset
- External voltage detector w/ UVLO
- Reference voltage with 4 decoupled outputs
- Bias current with 4 outputs
- 3-phase 1.2 MHz clock generator
- Level shifter disable signal generator
- Power-up sequencing controller

General Description

The SGC21412 is a versatile and scalable Power Controller for SoC integration. When used standalone acts as a robust POR with monitoring functions. When part of a PMU (Power Management Unit) acts as the backbone. On a PMU it provides all the essential support functions, such as high PSRR voltage and current references, Under Voltge Lock Out (UVLO), start-up sequencing, Power On Reset (POR) and Power On Controller (POC). It can monitor multiple regulated voltages and generate the reset signals accordingly. The internal references have digital trimming bits for fine-tuning the performance or yield. The SGC21412 does not require any external decoupling capacitor or pin and achieves better than 1 % voltage reference accuracy over temperature. It operates from T_j = –40 °C to +125 °C.

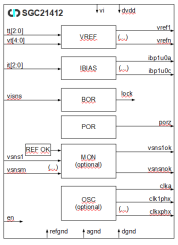
Applications

- Standalone POR & Vref
- Standalone Voltage Monitor
- Backbone for PMU/PMIC

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_{IN}	Input Voltage	1.60	-	1.98	V
V_{DVDD}	Digital Voltage	0.99	1.20	1.54	V
V_{ref}	Ref. Voltage	-	0.750	-	V
I_{bias}	Ref. Current	-	1	-	µA
F_{CLK}	Ref. Frequency	-	1.2	-	MHz

Application Diagram



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