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PRODUCT**OUTLINE**

SGC22300_01_GF_22FDSOI

RTC AND PMU CONTROLLER

Features

• Nano power *Real Time Clock (RTC)* with 32kHz oscillator
• PMU control: individual regulators enable / disable control in high / low / ultra-low / adaptive ultra-low power
• *Ultra-low power adaptive mode (Ludicrous)*
• Configurable supply domains isolation support
• Configurable reset and shutdown causes
• Anti-temper mechanisms
• Different wake sources
• 48-bit time counter, 32-bit general-purpose register and 2 alarms
• Ultra-low leakage design
• Fast start-up time

General Description

SGC22300_01_GF_22FDSOI is a *Real Time Clock (RTC)* based on the leading *SGC21510* solution. Using advanced analog design techniques, to guarantee ultra-low power and ultra-low leakage, it was designed to be the brain of the *Power Management Unit (PMU)*. Controlling the state of each regulator of the PMU, it defines if the regulators are in high, low, ultra-low or adaptive ultra-low power mode. Additionally, it includes anti-temper mechanisms, wake, reset or shutdown causes, that can be masked, allowing also to configure the effect of a reset. Being specified from TJ = –40°C to 125°C, it also includes ultra-low leakage configuration registers to allow the system architect to save the status bits.

Applications

• Time keeping applications
• Wireless Power devices
• Metering devices

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_{AVDD}	Analog Sup.	1.10	-	1.98	V
V_{DVDD}	Digital Sup.	0.70	-	0.90	V
F_{CLK}	XTAL Freq.	-	32.768	-	kHz