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PRODUCTOUTLINE

SGC22300_IP007703_GF_22FDX

RTC – REAL TIME CLOCK

Features

- Nano power Real Time Clock (RTC)
- PMU control
- 32kHz oscillator
- Fast start-up time
- Integrated oscillator load capacitors and bias
- Configurable reset, power and clock gating
- Adjustable oscillator trim to less than 0.5ppm
- Different wake sources, events latched
- 32-bit time counter and 2 alarms
- 32-bit general-purpose register
- Anti-temper mechanisms
- Ultra-low leakage design
- Divided square wave output

General Description

SGC22300_IP007703_GF_22FDX 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 allows the configuration of the effect of a reset, as well as the power state of internal blocks and clock gating. It also includes anti-temper mechanisms and a general-purpose register to allow the system architect to save the status bits in an ultra low leakage always on register. A programmable divided square wave output enables the selection of the most appropriate clock to minimize power consumption. Being specified from TJ = -40°C to 125°C, it can operate for weeks from the charge of a single super capacitor.

Applications

- Time keeping applications
- Wireless Power devices
- Metering devices

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_{AVDD}	Analog Voltage	1.60	-	3.63	V
V_{DVDD}	Digital Voltage	0.60	-	1.20	V
F_{CLK}	XTAL Frequency	-	32.768	-	kHz