

## Features

- Oscillator and nano power real time clock
- Nano power 32 kHz oscillator
- Integrated oscillator load capacitors and bias
- Divided square wave output
- Adjustable oscillator trim to < 0.5 ppm
- 32-bit time counter, alarm and GP register
- 100% analog flow ultra low leakage design
- Operating voltage from 1.2 V to 5.5 V
- Fast start-up time (< 1 s)

## Applications

## Applications Diagram

## General Description

RTC: The Real Time Clock (RTC) SGC22300 uses the leading RTC oscillator solution SGC21510. This specially designed RTC core uses advanced analog design techniques to guarantee ultra low power consumption and ultra low leakage in any sub-micron technology. A broad range of options allow the customer to select the best solution for each system. A general-purpose register option enables 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 the system power consumption. High test coverage is achieved through test modes. The SGC22300 can operate for weeks from the charge of a single super capacitor. It is specified from  $T_j = -40\text{ }^{\circ}\text{C}$  to  $+125\text{ }^{\circ}\text{C}$

## Quick Reference

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