

SGC21510_01_TSMC_CEN40FL

NANO POWER CRYSTAL OSCILLATOR

Features

- Nano power crystal oscillator
- Ultra-low current consumption
- Low crystal aging
- Fast start-up time (< 1s)
- Built-in bias references
- Integrated oscillator load capacitors
- Operating voltage from 1.62V up to 3.63V
- Startup monitor with reset generator
- Available in 4 frequency ranges: 15 to 50kHz, 50 to 150kHz, 500 to 1500kHz and 32kHz (optimized for RTC)

General Description

The *SGC21510_01_TSMC_CEN40FL* family of crystal oscillators targets ultra-low power applications. Making use of advanced amplitude control, to achieve both ultra-low power consumption and reduced crystal aging, without compromising crystal selection flexibility nor performance, it is optimized to work from 15kHz up to 1500kHz, available in different ranges, plus a 32kHz optimized version. Being specified from $T_j = -40^{\circ}\text{C}$ to 125°C , the *SGC21510_01_TSMC_CEN40FL* can operate, considering 32kHz RTC applications, for weeks from the charge of a single super capacitor, due to its ultra-low power consumption.

Applications

- Time keeping applications
- Hearing aids
- Wireless Sensor Networks
- Wireless Power devices
- Battery powered stand-by devices
- Metering devices

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_{AVDD}	Analog Supply	1.62	—	3.63	V
V_{DVDD}	Digital Supply	0.81	—	1.21	V
F_{XTAL}	Crystal Frequency		32768		Hz