

COMMITMENT

SGC21510\_01\_TSMC\_CEN40FL

**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 bothultra-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 Tj = -40 °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 <sub>AVDD</sub>	Analog Supply	1.62	_	3.63	V
V <sub>DVDD</sub>	Digital Supply	0.81	_	1.21	V
F <sub>XTAL</sub>	Crystal Frequency		32768		Hz