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PRODUCT**OUTLINE**

SGC21549_IP007702_GF_22FDX

RC OSCILLATOR WITH 64-BIT PUF

Features

- Nano power RC-based 100kHz oscillator
- Fast start-up time
- 64-bit PUF based on current-mirror mismatch
- Embedded 128-bit register for PUF raw output

General Description

SGC21549_IP007702_GF_22FDX is a digitally controlled RC based oscillator with embedded Physically Unclonable Function (PUF) implementation. Optimized for systems with security features, it offers high temperature stability and ultra-low power consumption, making use of a RC dependent oscillator topology. Designed for 100kHz, it is the best solution for low-cost identification and secure authentication applications due to its 64-bit input PUF with 128-bit raw output. It is specified from Tj = -40°C to +125 °C.

Applications

- IoT
- Secure System-On-Chip (SSoC)
- Battery powered stand-by devices

Quick Reference

SYMBOL	DESCRIPTION	MIN	TYP	MAX	UNIT
V_{DVDD}	Digital Voltage	1.20	-	1.98	V
F_{CLK}	Clock Range	-	100	-	kHz
DC_{CLK}	Duty-Cycle	40	-	60	%