

# SIVI-XO32M18001

TSMC 180nm-G (1P5M)

## MAIN FEATURES

- Designed on TSMC 180nm Generic Process
- 1.8V Supply Voltage
- Automatic current control loop
- Operates from a 32MHz quartz crystal
- Low current consumption
- Low Phase Noise Performance
- Fast wake up time
- Temperature Range from -40C° to 125C°

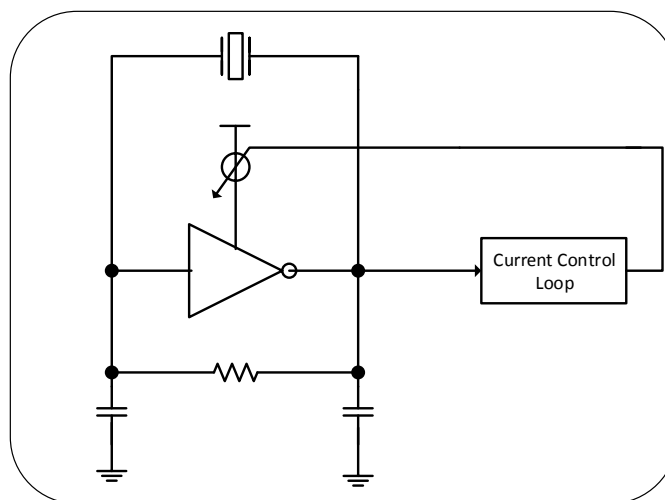
## IP DESCRIPTION

SiVi-XO32M18001 is a low power high resolution Crystal oscillator that nominally operates from 32MHz quartz crystal. The IP provide low power solution due to its on-chip current control loop. SiVi-XO32M18001 provides ultra-low phase noise performance which makes it suitable for low power and low noise clock generators and frequency synthesizers.

SiVi-XO32M18001 is silicon verified on TSMC/SMIC 180nm generic process.

## ELECTRICAL SPECIFICATIONS

Spec / Result		Min	Typ	Max	Unit
Supply Voltage		1.6	1.8	2.0	V
Temperature Range		-40	27	125	°C
Crystal Frequency Range			32		MHz
Core Current Consumption			400	500	μA
Buffer Current Consumption			180	240	μA
Wake Up time				500	μs
Gain			10		dB
Phase Noise	@100Hz	-93	-106		dBc/Hz
	@1MHz		-145	-142	
Duty Cycle		49.5	50.5	51.3	%



SiVi-XO32M18001 Block Diagram