SIVI-BG130N200

GSMC 130nm-G (1P5M)

MAIN FEATURES

- Designed on GSMC 130nm Generic process
- V_{supply}: 1.9V → 3.6V
- Accuracy across PVT: ±1.5%
- Accuracy after trimming is less than ±0.1%
- Ultra-Low power noise performance
- Excellent supply rejection over wide frequency range
- Low current consumption
- Capability of trimming the output voltage
- Small IP area < 0.018mm²
- Operational temperature from -40C° to 125C°

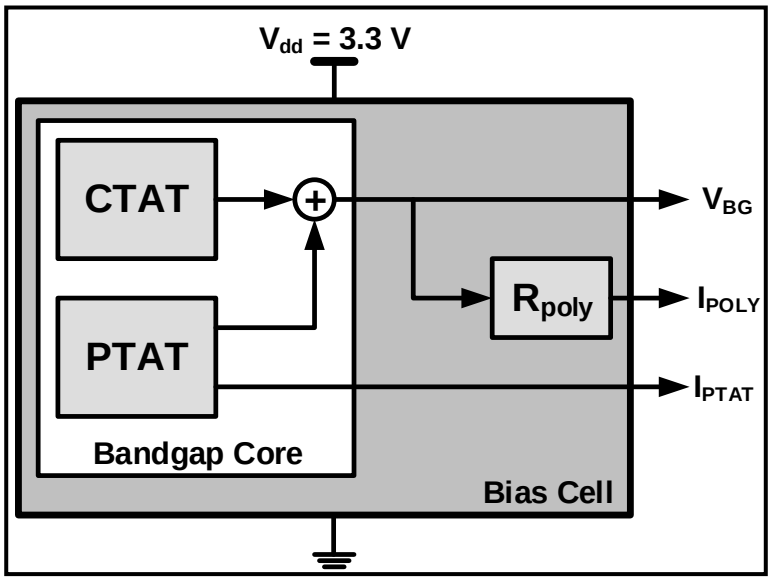
IP DESCRIPTION

SiVi-BG130n200 is an ultra-low noise bandgap reference cell with less than 1.5nV/√Hz spot noise at 100kHz. With its good accuracy and ultra-low noise performance SiVi-BG130n200 is considered the optimum solution for low noise SoC solutions

SiVi-BG180n400 is silicon verified on a Generic GSMC 130nm process.

ELECTRICAL SPECIFICATIONS

Spec / Result		Min	Typ	Max	Unit
Supply Voltage		1.9	3.0	3.6	V
Temperature Range		-40	27	125	°C
PSRR	@10kHz		-75		dB
	@1MHz		-55		
Spot Noise @100kHz				1.4	nV/√Hz
Temperature Coefficient	@T = -40°C	-25		5	ppm/°C
	@T = 27°C	-7		-5	
	@T = 125°C	-20		0	
Voltage Coefficient (2.0V →3.6V Vdd)		0.5		1	%/V
Startup time, CL=5pf			300		µs
Output Voltage		0.84	0.856	0.87	V
Current Consumption,			90	120	µA



SiVi-BG130n200 Block Diagram

Silicon Vision
79 Almultaqa Alaraby,
Cairo, Egypt, P.O. Box 11361
Tel: +202-22669160
info@si-vision.com