SIVI-BG65N100

TSMC 65nm-G (1P5M)

MAIN FEATURES

- Designed on TSMC 65nm Generic process
- V_{supply}: 2.5V → 3.6V
- Accuracy across PVT: ±1.8%
- Low power consumption less than 50µA
- Good supply rejection
- Low noise performance
- Capability of trimming the output voltage
- Small IP area < 0.02mm²
- Operational temperature from -40C° to 125C°

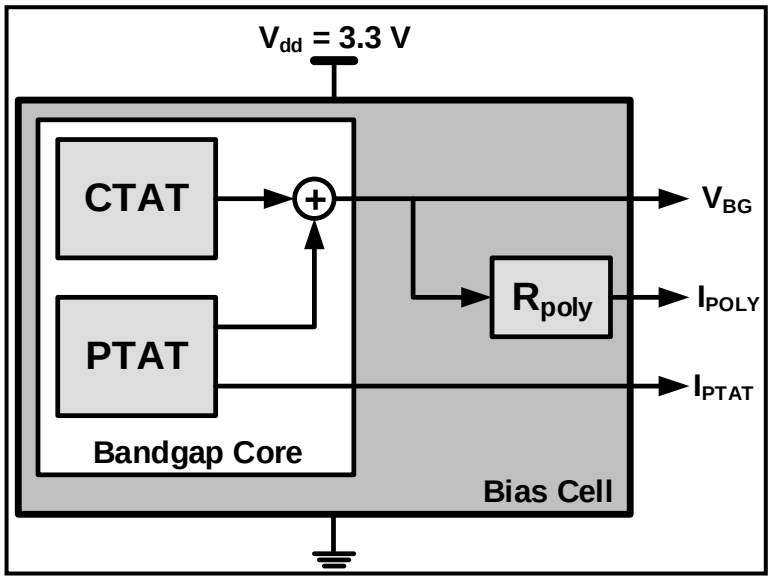
IP DESCRIPTION

SiVi-BG65n100 is a low current bandgap reference cell which consumes less the 50µA for operation. A fully integrated technique is used to compensate the tempco of the integrated resistor used in generating the reference current. With its good accuracy and low current performance SiVi-BG65n100 is considered the optimum solution for low power SoC solutions

SiVi-BG65n100 is silicon verified on a Generic TSMC 65nm process.

ELECTRICAL SPECIFICATIONS

Spec / Result		Min	Typ	Max	Unit
Supply Voltage		2.5	3.0	3.6	V
Temperature Range		-40	27	125	°C
PSRR	@10kHz		-60		dB
	@1MHz		-40		
Spot Noise @10kHz				300	nV/√Hz
Temperature Coefficient	@T = -40°C	-8		20	ppm/°C
	@T = 27°C	-2		5	
	@T = 125°C	-25		10	
Voltage Coefficient (2.0V →3.6V Vdd)				1.0	%/V
Startup time, CL=5pf			100		µs
Output Voltage wo Calibration		1.182	1.204	1225	V
Current Consumption,				50	µA



SiVi-BG65n100 Block Diagram

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