

Precision Bandgap Circuit

Description

The HX11BC is an ultra-precision bandgap circuit providing a reference voltage with a very tight temperature coefficient, low noise and high PSRR. Digital trimming is also incorporated to optimize temperature coefficient behavior. Suitable for environments from -55°C to 150°C.

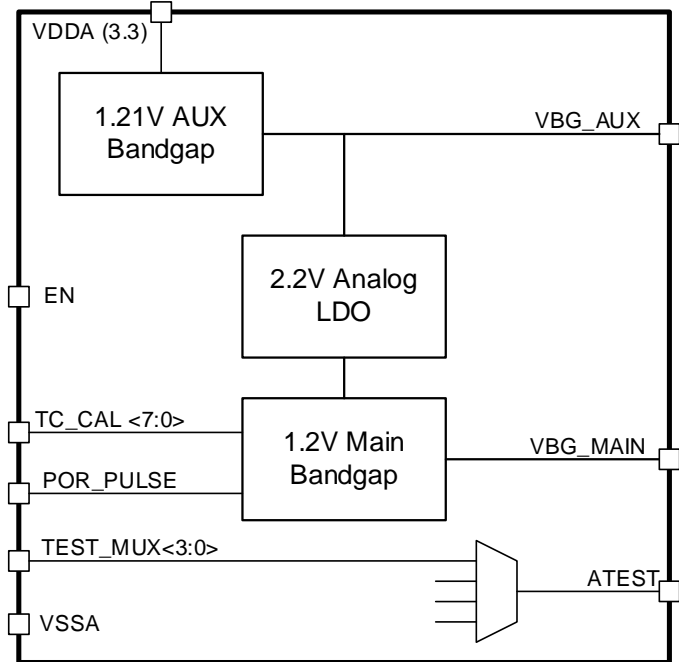
Features

- 4ppm/°C temp coefficient (-30°C to 85°C)
- 15ppm/°C temp coefficient (-40°C to 125°C)
- 35ppm/°C temp coefficient (-55°C to 150°C)
- 15µV_{rms} Noise Voltage (0.1Hz to 10Hz)
- 100µV_{rms} Noise Voltage (10Hz to 650kHz)
- -137 dB PSRR
- 3.3V analog supply
- Extended temperature range: -55°C to 150°C
- Dimensions: 775um x 480um (0.372mm²)

Applications

- Data Converter References
- Precision Voltage References

Block Diagram



Specifications

Parameter	Conditions	Min	Typ	Max	Unit
Supply Voltage		2.97	3.3	3.63	V
Temperature Range		-55	27	150	C
Output Voltage			1.21		V
Temperature Coefficient	-30C < T _A < 85C		4		ppm/C
	-40C < T _A < 125C		15		ppm/C
	-55C < T _A < 150C		35		ppm/C
Noise Voltage	0.1Hz to 10Hz		15		uV _{rms}
	10Hz to 650kHz		100 ¹		uV _{rms}
PSRR	60Hz		-137		dB

¹ Dependent on the size of external filter capacitor

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