

June, 1998 Preliminary

AMI 0.8 micron CMOS
CWL Double Poly

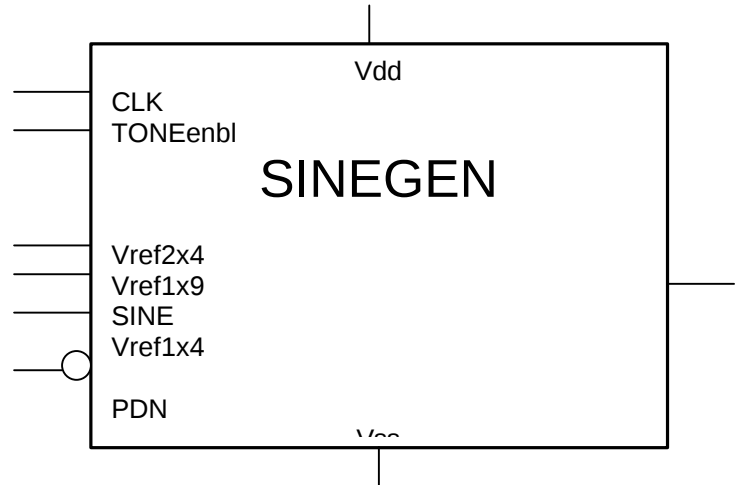
Sinegen

FEATURES

- Power down Mode.
- Implemented with a combination switch capacitor DAC and filter.

DESCRIPTION

Sine wave generator



PIN DESCRIPTION

MAME	TYPE	DESCRIPTION
CLK	Digital Input	Clock input, 64 times the sine freq, ~50% duty
TONEenbl	Digital Input	Enables the sine wave output, active high
Vref2x4	Analog Input	Voltage reference of 2.4 V
Vref1x9	Analog Input	Voltage reference of 1.9 V
Vref1x4	Analog Input	Voltage reference of 1.4 V
PDN	Digital Input	Powers down the cell, active low
SINE	Analog Output	Sine wave output
Vdd	Power	Positive supply voltage
Vss	Ground	Negative supply voltage

AC ELECTRICAL CHARACTERISTICS

PARAMETER	CONDITION	MIN	TYP	MAX	UNIT
Supply Voltage Range		4.5		5.5	V
Supply Current			0.75	1.5	mA
Temperature		-10		70	°C
Frequency Range		0.5		3.0	KHz
Output Amplitude		0.36 V Peak		0.254 V RMS	
Amplitude Error Across Frequency Range		-0.25 dB (-3%)		+0.25 dB (+3%)	
Total Harmonic Distortion				-29	DB

COMMENTS



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This Circuit was designed for a DTMF generator, and thus the output drivers were not laid out for external output.