

Preliminary

- ◆ CMOS Low Power Consumption
- ◆ Input Frequencies : 14KHz to 35MHz
- ◆ Divider Ratios : 1 to 2047 divisions (laser trimming)
- ◆ Multiplier Ratios : 20 to 2047 multiplications (laser trimming)
- ◆ Comparative Frequencies : 14KHz to 500KHz
- ◆ Output Frequencies : 9MHz to 80MHz
- ◆ Mini Mold SOT-26 Package

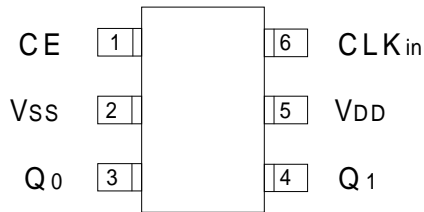
General Description

The XC25BS3 series are high frequency, low power consumption PLL clock generator ICs with built-in crystal oscillator circuits, divider circuits & multiplier PLL circuits.

Laser trimming gives the option of being able to select from divider ratios (M) of 1 to 2047 and multiplier ratios (N) of 20 to 2047.

Output frequency (Qo) is equal to reference oscillation (f0) multiplied by N/M, within a range of 9MHz to 80MHz. Q1 output is selectable from reference oscillation, comparative frequencies, PLL output frequencies /2, comparative frequencies/2. Further, comparative frequencies, within a range of 14KHz to 500KHz, can be obtained by dividing the reference oscillation. By halting oscillation via the CE pin, consumption current can be controlled. Output will be one of high impedance.

Pin Configuration



SOT-26
(TOP VIEW)

CE, Q0/Q1 Pin Function

CE	FUNCTION
H	Qo/Q1 clock output.
L	Standby. Output pin = high impedance
Open	Standby. Output pin = high impedance (VSS pin pull down due to IC's internal resistance)

Absolute Maximum Ratings

PARAMETER	SYMBOL	CONDITIONS	UNITS
Supply Voltage	VDD	VSS - 0.3 to VSS + 7.0	V
CLKin Pin Voltage	VCK	VSS - 0.3 to VDD + 0.3	V
CE Pin Voltage	VCE	VSS - 0.3 to VDD + 0.3	V
Qo Pin Voltage	VQO	VSS - 0.3 to VDD + 0.3	V
Q1 Pin Voltage	VQ1	VSS - 0.3 to VDD + 0.3	V
Qo Output Current	IQO	+/- 50	mA
Q1 Output Current	IQ1	+/- 50	mA
Power Dissipation	PD	150	mW
Ambient Temp.	Topr	-30 to +80	°C
Storage Temp.	Tstg	-40 to +125	°C

Applications

- Crystal Oscillation Modules
- Personal Computers
- PDAs
- Portable Audio Systems
- Various System Clocks

Features

Output Frequencies : 9MHz to 80MHz (Qo = f0 x N/M)

Reference Oscillation (f0) : 14KHz to 35MHz

Divider Ratios (M) : Selectable from divisions of 1 to 2047

Multiplier Ratios (N) : Selectable from multiplications of 20 to 2047

Output : 3 State

Q1 output selectable from reference oscillation, comparative frequencies, PLL output frequencies/2, comparative frequencies/2.

Operating Voltage Range : 3.0V to 5.5V

Low Power Consumption : CMOS (standby function included) *

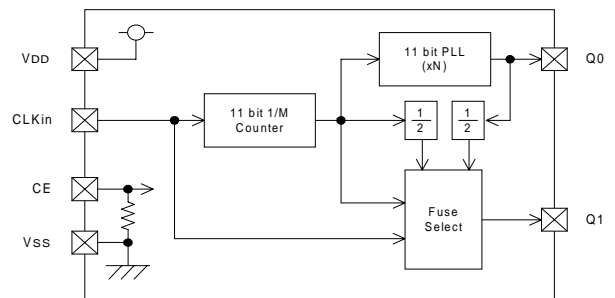
Ultra Small Package : SOT - 26 mini mold

* High output impedance during standby

Pin Assignment

PIN NUMBER	PIN NAME	FUNCTION
1	CE	Chip Enable
2	Vss	GND
3	Qo	PLL Output
4	Q 1	Reference Oscillation, PLL Output/2, Comparative Frequencies, Comparative Frequencies/2 Output
5	VDD	Power Supply
6	CLKin	Standard Clock Input

Block Diagram



Ta=25°C