



Application Note AN6034

Clock Multiplier for Consumer & Communication Applications

This document describes the programmed values and functions of CY22800FXC-009A. Refer to the CY22800 data sheet for detailed product description and specifications.

Features

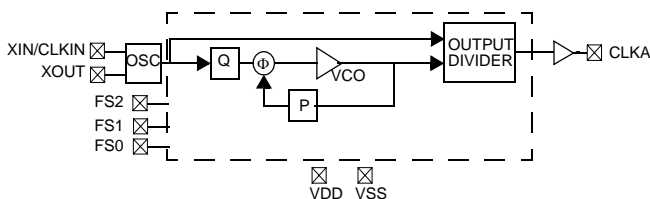
- Wide input and output frequency ranges
- Low cycle-to-cycle jitter

Table 1. Device Specifications

Code Number	Input Frequency Range (MHz)	Output Frequency Range (MHz)	Number of Outputs	Special Function
CY22800FXC-009A	See Frequency Table	See Frequency Table	1	Clock Multiplier

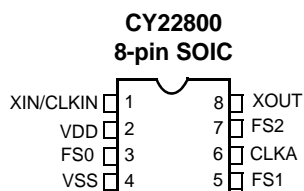
Architecture

Figure 1. Logic Block Diagram



Pinouts

Figure 2. Pin Configuration



Frequency

Table 2. Frequency Table

FS[2:0]	CLKIN (MHz)	CLKA (MHz)	CLKIN/Xtal Range (MHz)	Multiplying Factor	CLKA Range (MHz)
000	20	33.33	8–30	1.666666667	13.3–50
001	20	66.66	8–30	3.333333333	26.7–100
010	20	50	8–26	2.5	20–65
011	20	75	8–26	3.75	30–97.5
100	20	80	8–25	4	32–100
101	20	100	8–26	5	40–130
110	20	133.33	8–30	6.666666667	53.33–200
111	OFF	OFF	OFF	OFF	OFF

AC/DC Parameters

Table 3. AC/DC Parameters

Parameter ^[1]	Description	Typical Value	Unit
t ₁	Cycle-to-cycle Jitter	60 ^[2]	ps
t ₂	Period Jitter	73 ^[2]	ps
I _{DD}	Current Consumption	14 ^[3]	mA

Ordering Information

Table 4. Ordering Information

Part Number ^[4]	Package Type	Product Flow
CY22800FXC-009A	8-pin SOIC - Lead Free	Commercial, 0 to 70°C

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Notes

1. Refer to the CY22800 generic data sheet for a complete list of AC/DC parameters.
2. Measurements made under nominal conditions (VDD = 3.3V, room temperature, 15 pF load cap.) with FS[2:0] = 000.
3. Measurements made under nominal conditions (VDD = 3.3V, room temperature, no load) with FS[2:0] = 000.
4. When ordering from a distributor, use CY22800FXC with the specific code number (009A).

July 13, 2006

Revision **

- 1 -

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