



Application Note AN6037

Clock Multiplier for Consumer & Communication Applications

This document describes the programmed values and functions of CY22800FXC-012A. Refer to the CY22800 data sheet for detailed product description and specifications.

Features

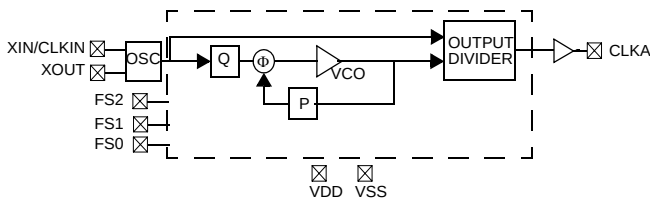
- Wide input and output frequency ranges
- Low cycle-to-cycle jitter

Table 1. Device Specifications

Code Number	Input Frequency Range (MHz)	Output Frequency Range (MHz)	Number of Outputs	Special Function
CY22800FXC-012A	See Frequency Table	See Frequency Table	1	Clock Multiplier

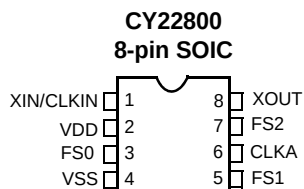
Architecture

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	25	12	9–30	0.48	4.32–14.4
001	25	24	9–30	0.96	8.64–28.8
010	25	48	9–30	1.92	17.2–57.6
011	25	60	9–30	2.4	21.6–72
100	25	62.5	8–30	2.5	20–75
101	25	106.25	8–30	4.25	34–127.5
110	25	125	10–30	5	50–150
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	82 ^[2]	ps
t ₂	Period Jitter	94 ^[2]	ps
I _{DD}	Current Consumption	16 ^[3]	mA

Ordering Information

Table 4. Ordering Information

Part Number ^[4]	Package Type	Product Flow
CY22800FXC-012A	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] = 100.
3. Measurements made under nominal conditions (VDD = 3.3V, room temperature, no load) with FS[2:0] = 011.
4. When ordering from a distributor, use CY22800FXC with the specific code number (012A).

July 13, 2006

Revision **

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