



Application Note AN6035

Clock Multiplier for Consumer & Communication Applications

This document describes the programmed values and functions of CY22800FXC-010A. Refer to the CY22800 data sheet for detailed product description and specifications.

Features

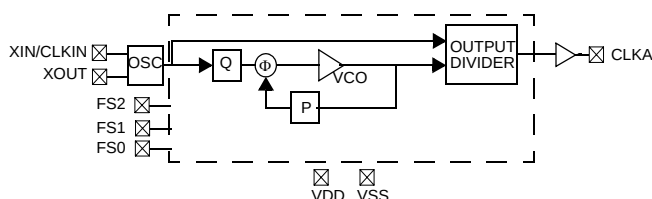
- Wide input and output frequency ranges
- Low cycle-to-cycle jitter

Table 1. Device Specifications

Code Number	Input Frequency Range (MHz)	Output Frequency Range (MHz)	Number of Outputs	Special Function
CY22800FXC-010A	See Frequency Table	See Frequency Table	1	Clock Multiplier

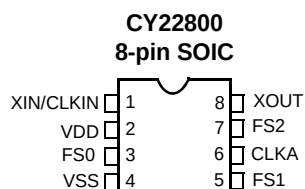
Architecture

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	12	8–22	0.6	4.8–13.2
001	20	24	8–22	1.2	9.6–26.4
010	20	48	9–30	2.4	21.6–72
011	20	60	8–22	3	24–66
100	20	62.5	8–30	3.125	25–93.8
101	20	106.25	10–30	5.3125	53.1–159.4
110	20	125	8–30	6.25	50–187.5
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	85 ^[2]	ps
t ₂	Period Jitter	94 ^[2]	ps
I _{DD}	Current Consumption	14 ^[3]	mA

Ordering Information

Table 4. Ordering Information

Part Number ^[4]	Package Type	Product Flow
CY22800FXC-010A	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] = 010.
4. When ordering from a distributor, use CY22800FXC with the specific code number (010A).

July 13, 2006

Revision **

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