Spread Spectrum Clock Generator: ±0.5% Center Spread

This document describes the programmed values and functions of CY22800FXC-016A. Refer to the CY22800 data sheet for detailed product description and specifications.
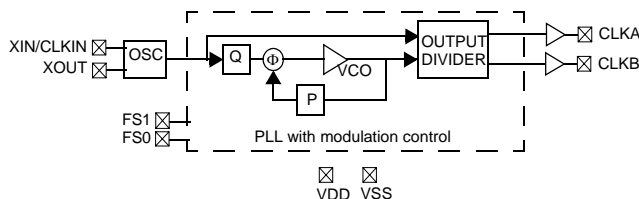
Features
- Wide input and output frequency ranges
- Low cycle-to-cycle jitter

Table 1. Device Specifications

Code Number	Input Frequency Range (MHz)	Output Frequency Range (MHz)	Number of Outputs	Special Function
CY22800FXC-016A	25–100 (CLKIN) 25–30 (Crystal)	25 MHz–100 MHz	2	±0.5% Center Spread

Architecture

Figure 1. Logic Block Diagram

Pinouts

Figure 2. Pin Configuration

CY22800 8-pin SOIC

XIN/CLKIN	1	8	XOUT
VDD	2	7	FS1
FS0	3	6	CLKA
VSS	4	5	CLKB
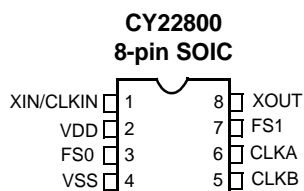
Frequency

Table 2. Frequency Table

FS[1:0]	CLKIN (MHz)	Xtal (MHz)	CLKA	CLKB
00	25–100	25–30	1xREFIN (Spread ON)	REFOUT (Spread OFF)
01	25–100	25–30	1xREFIN (Spread OFF)	REFOUT (Spread OFF)
10	25–100	25–30	1xREFIN (Spread ON)	1xREFIN (Spread ON)
11	25–100	25–30	1xREFIN (Spread ON)	(1xREFIN)/2 (Spread ON)

AC/DC Parameters

Table 3. AC/DC Parameters

Parameter[1]	Description	Typical Value	Unit
t_1	Cycle-to-cycle Jitter	74[2]	ps
I_{DD}	Current Consumption	18[3]	mA

Ordering Information

Table 4. Ordering Information

Part Number[4]	Package Type	Product Flow
CY22800FXC-016A	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 on CLKA under nominal conditions (VDD = 3.3V, room temperature, 15 pF load cap.) with FS[1:0] = 10.
3. Measurements made under nominal conditions (VDD = 3.3V, room temperature, no load) with FS[1:0] = 11.
4. When ordering from a distributor, use CY22800FXC with the specific code number (016A).