

Clock Multiplier for Consumer & Communication Applications

This document describes the programmed values and functions of CY22800FCX-009A. Refer to the CY22800 data sheet for detailed product description and specifications.

Features

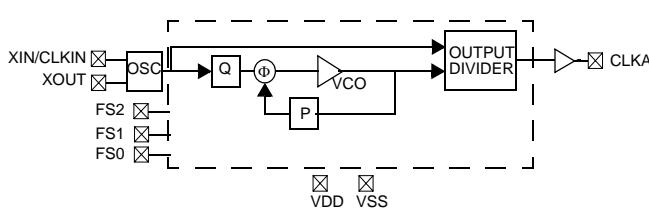
- Wide input and output frequency ranges
- Low cycle-to-cycle jitter

Table 1. Device Specifications

| Code Number | Input Frequency Range (MHz) | Output Frequency Range (MHz) | Number of Outputs | Special Function |
|-----------------|-----------------------------|------------------------------|-------------------|------------------|
| CY22800FCX-009A | See Frequency Table | See Frequency Table | 1 | Clock Multiplier |

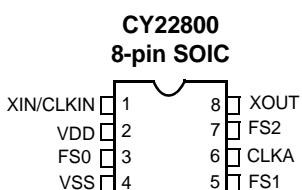
Architecture

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 | 1.6666666667 | 13.3–50 |
| 001 | 20 | 66.66 | 8–30 | 3.3333333333 | 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 | 6.6666666667 | 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 |
|----------------------------|------------------------|-----------------------|
| CY22800FCX-009A | 8-pin SOIC - Lead Free | Commercial, 0 to 70°C |

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Notes

- Refer to the CY22800 generic data sheet for a complete list of AC/DC parameters.
- Measurements made under nominal conditions (VDD = 3.3V, room temperature, 15 pF load cap.) with FS[2:0] = 000.
- Measurements made under nominal conditions (VDD = 3.3V, room temperature, no load) with FS[2:0] = 000.
- When ordering from a distributor, use CY22800FCX with the specific code number (009A).

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Revision **

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