

Features

- | **3 input reference clocks:**
 - Two differential clock pair, supporting up to 350MHz for both differential and single-ended clock sources
 - One crystal input, accepting 8MHz to 50MHz crystal or single-ended clock source
- | **10 output clocks:**
 - Two output banks, containing 5 LVC MOS output clocks each
- | **Frequency range:**
 - LVC MOS: DC to 350MHz
- | **Excellent Power Supply Ripple Rejection(PSRR) :**
 - 53dBc (LVC MOS) @ 156.25MHz
- | **Ultra-low latency and skew**
- | **Additive Jitter :**
 - 34 fs RMS (12kHz to 20MHz) typical @LVC MOS 156.25MHz
- | **Configurable power supplies:**
 - Core: 1.8V-3.3V
 - Single-ended outputs: 1.5V-3.3V
- | **Glitch-free switchover supported in the "G" version**
- | **Pin-based control, allowing input reference selection, output enable/disable**
- | **Working Temperature: -40°C to +85 °C**
- | **Package: 24-pin WQFN**

Note :

- 1、SYKB*****: No glitch-free switchover.
- 2、SYKB*****G: Includes glitch-free switchover
- 3、Unless otherwise stated, the terms "clock buffer" or "buffer" refer to the entire series.

General Description

SYKB23C10/SYKB23C10G is a type of high-performance clock fanout buffers operating at up to 350MHz with 10 single-ended outputs. The buffer is designed for low-jitter, high-frequency clock/data distribution and level translation applications.

The buffer supports clock input selection from either two differential clock pair or one crystal input, distributing the selected clock to two output banks.

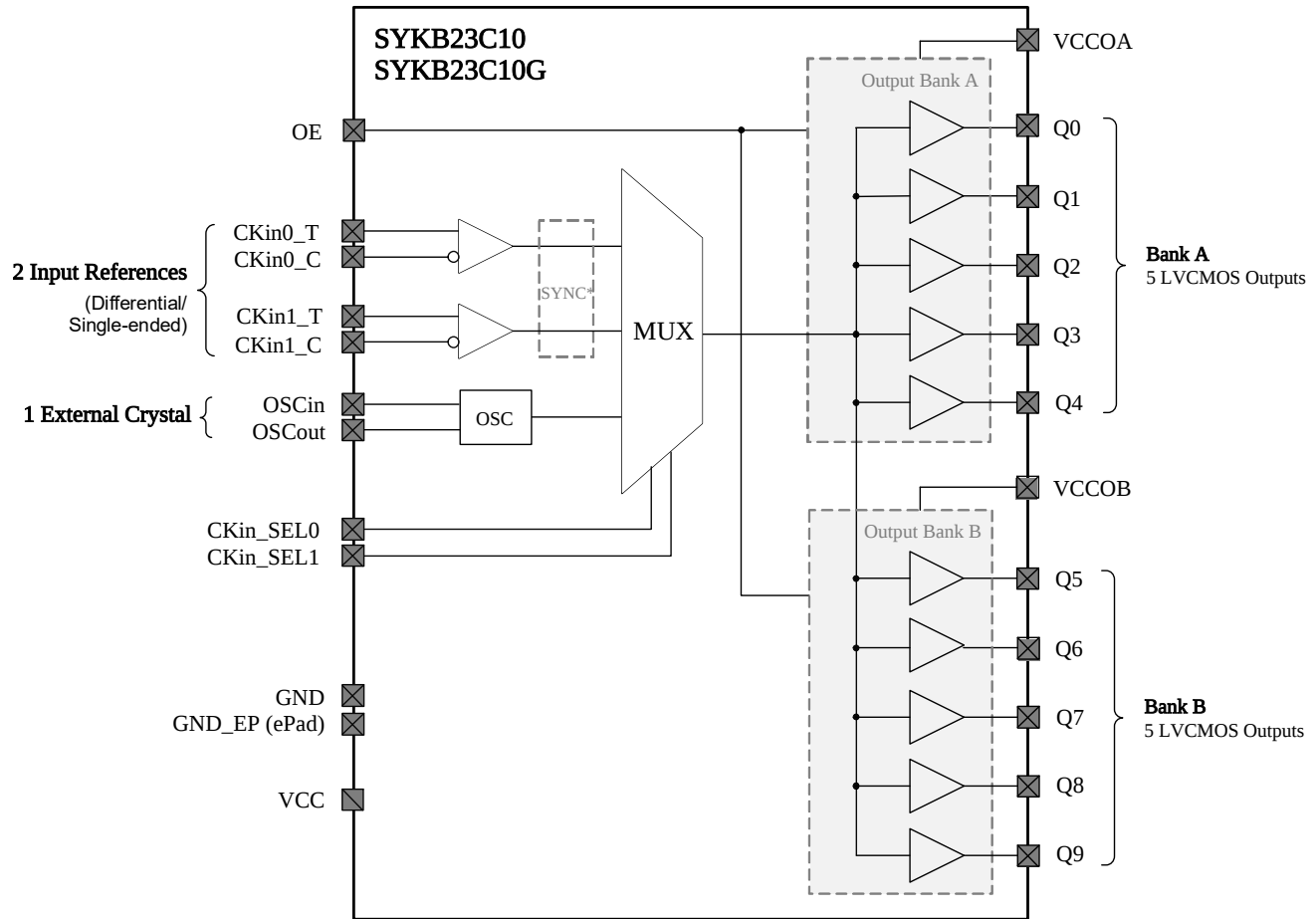
Operating with a core supply of 1.8V-3.3V and output supplies of 1.5V-3.3V, the clock buffer provides flexible control via logic pins for input reference selection and output enable/disable functions.

The buffer can be paired with SYNK Technology' s SYKG10xx clock generator to deliver a robust clock tree solution. With broad input and output frequency ranges, optimized power management, and reduced propagation delay, the buffer operates across a wide temperature range, making it an ideal choice for demanding applications.

Applications

- | PCIe® 1.0 to 6.0 and NVLink
- | Clock distribution and level translation for ADCs, DACs, SATA/SAS, SONET/SDH, multi-gigabit Ethernet, and Fibre Channel line cards
- | Servers, storage systems, switches, routers, and display panels
- | Reference clock distribution for BBU and RRU applications

Functional Block Diagram



Note: Only the “ G ” (includes glitch-free switchover) version supports the synchronization function.

Ordering Information

Part Number	Package	Operating Temperature
SYKB23C10	32-pin WQFN, 5.0mm x 5.0mm x 0.75mm	-40°C to +85°C
SYKB23C10G		

This document is a brief product specification sheet that outlines only the basic features. For detailed electrical specifications, please contact <https://www.yxcxtal.com> to request the complete version of the specification sheet.