Features

- 2 input reference clocks:
  - One 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
- 5 output clocks:
  - Two output banks, containing 2 and 3 LVCMOS output clocks, respectively
- Frequencyrange:
  - LVCMOS:DC to 350MHz
- Excellent Power Supply Ripple Rejection(PSRR)：
  - 53dBc (LVCMOS) @ 156.25MHz
- Ultra-low latency and skew
- Additive Jitter：
  - 34 fs RMS (12kHz to 20MHz) typical @LVCMOS 156.25MHz
- Configurable power supplies:
  - Core: 1.8V-3.3V
  - Single-ended outputs: 1.5V-3.3V
- power supplies for:
  - Differential outputs
  - Single-ended outputs
  - Core
- Pin-based control,allowing input reference selection,output enable/disable
- Working Temperature: -40°C to +85 °C
- Package:24-pin WQFN

Note：

1、SYKB22C05: No glitch-free switchover.

2、SYKB22C05G: Includes glitch-free switchover

3、Unless otherwise stated, the terms "clock buffer" or "buffer" refer to the entire series.

General Description

SYKB22C05/SYKB22C05G is a type of high-performance clock fanout buffers operating at up to 350MHz with 5 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 one differential clock pair or one crystal input, distributing the selected clock to two output banks, containing 2 and 3 LVCMOS output clocks, respectively.

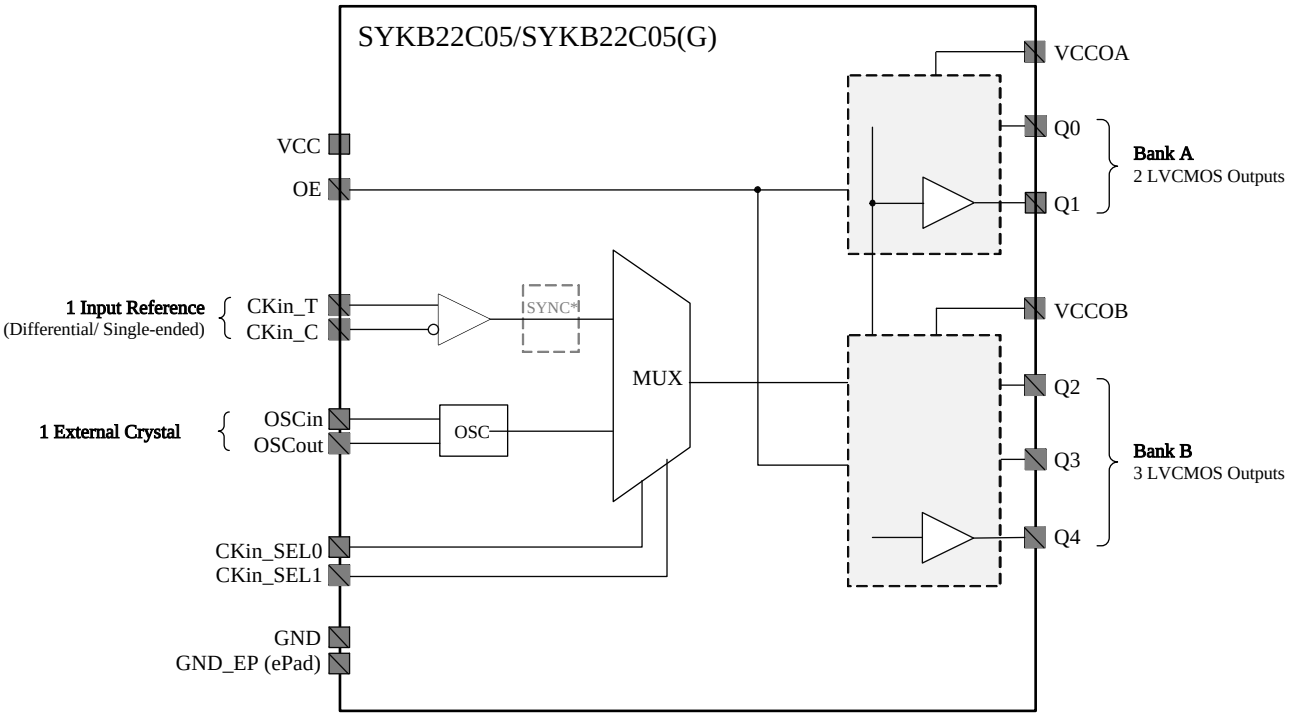
Operating with a core supply of 1.8V-3.3V and output supplies of 1.5V-3.3V, the clock buffer provides flexible control via logic pins for input reference selection and output enable/disable functions.

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

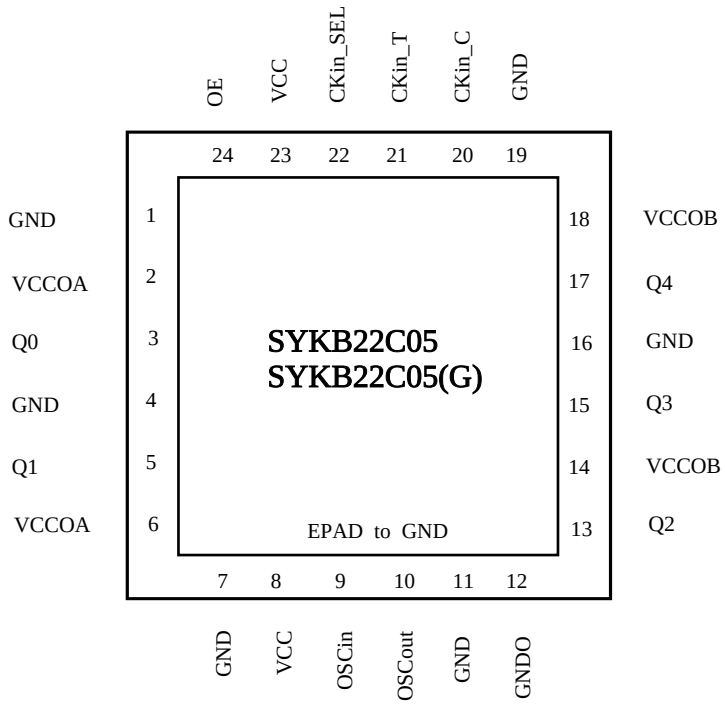
- PCIe® 1.0 to 6.0 and NVLink
- Clock distribution and level translation for ADCs, DACs, SATA/SAS, SONET/SDH, multi-gigabit Ethernet, and Fibre Channel line cards
- Servers, storage systems, switches, routers, and display panels
- Reference clock distribution for BBU and RRU applications

Functional Block Diagram



Note: Only the SYKB22C05(G) (includes glitch-free switchover) version supports the syncronization function.

Pin Assignment (24-pin WQFN)



Ordering Information

Part Number	Package	Operating Temperature
SYKB22C05	24-pin WQFN, 4.0mm x 4.0mm x 0.75mm	-40°C to +85°C
SYKB22C05(G)		

For more information on the product, please contact https://yxcxtal.com