

Timing Solutions for PLX Technology

Overview

Silicon Labs has a wide selection of frequency flexible, low jitter timing products including clock generators, jitter attenuating clocks, XO/VCXOs, and buffers targeting applications in the communications, computing, embedded, broadcast video, and consumer electronics markets.

The following are Silicon Labs' recommended timing products for PLX Technology. Turnkey reference designs are also summarized below.

SL28xxx PCI Express HCSL Clock Generators

- High clock density – up to 9 HCSL outputs
- PCIe 1.1 / PCIe 2.1 / PCIe 3.0 compliant
- Custom solutions with additional LVCMOS outputs available
- Integrated output clock termination resistors
- 30% lower power than competing solutions

Si533x Low Jitter HCSL/LVDS/LVPECL Clocks

- 4 any-rate differential outputs up to 350 MHz
- Low phase jitter: < 1 ps RMS (12kHz-20MHz)
- 70% lower jitter than PCIe 3.0 requirements
- Any format on any output: HCSL, LVDS, LVPECL, LVCMOS
- VDDO = 1.8V, 2.5V or 3.3V (each output)

Silicon Labs Recommended Clock ICs for PLX Switches/Controllers

PLX Part Number	Silicon Labs Part Number	Applications
PEX8603/5 PCIe (3-/4-port switch), or USB 3380/82 (1-/2-port USB controller)*	<ul style="list-style-type: none"> • SL28PCIe14 PCIe Gen 2 & 3 Clock Generator 	<ul style="list-style-type: none"> • IP Gateway • Host bus adapter • Direct Attached Storage (DAS) • Network Attached Storage (NAS)
PEX87xx PCIe Switch	<ul style="list-style-type: none"> • SL28SRC01 PCIe Gen 2 / 3 Clock Generator • CY28400-2 100 MHz PCIe Differential Buffer 	<ul style="list-style-type: none"> • Network server • Enterprise storage • Host bus adapter
PEX8505 PCIe Switch	<ul style="list-style-type: none"> • SL28SRC01 PCIe Gen 2 / 3 Clock Generator • CY28400-2 100 MHz PCIe Differential Buffer 	<ul style="list-style-type: none"> • Multi-function printer

*Note: "Mira" is a USB 3.0 device and PCIe Switch

Featured Reference Designs

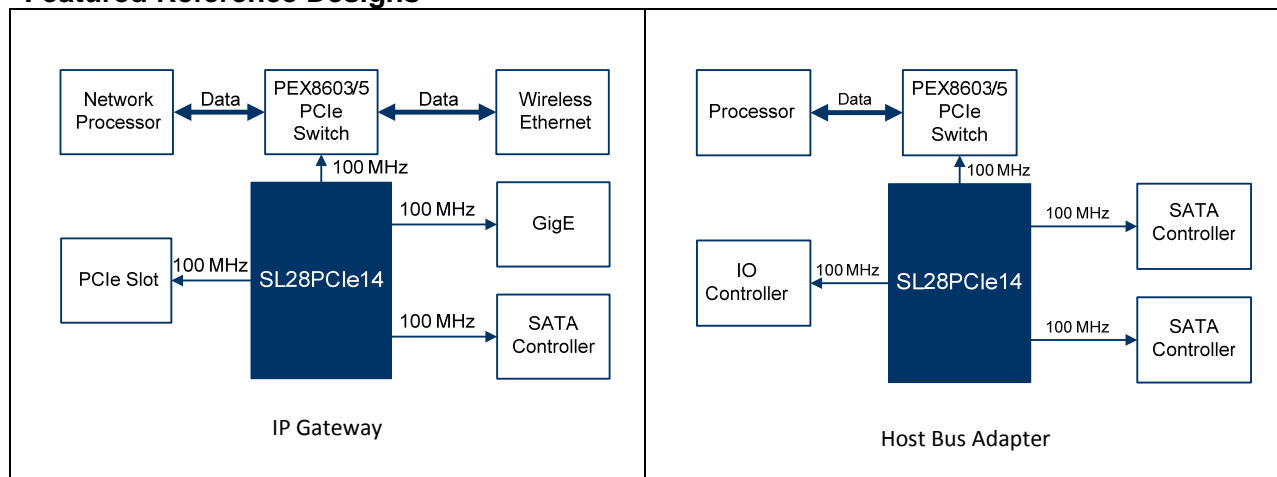


Figure 1. Silicon Labs SL28PCIe14 and PLX's Mira (PEX8603/5, USB3380/2) Reference Designs

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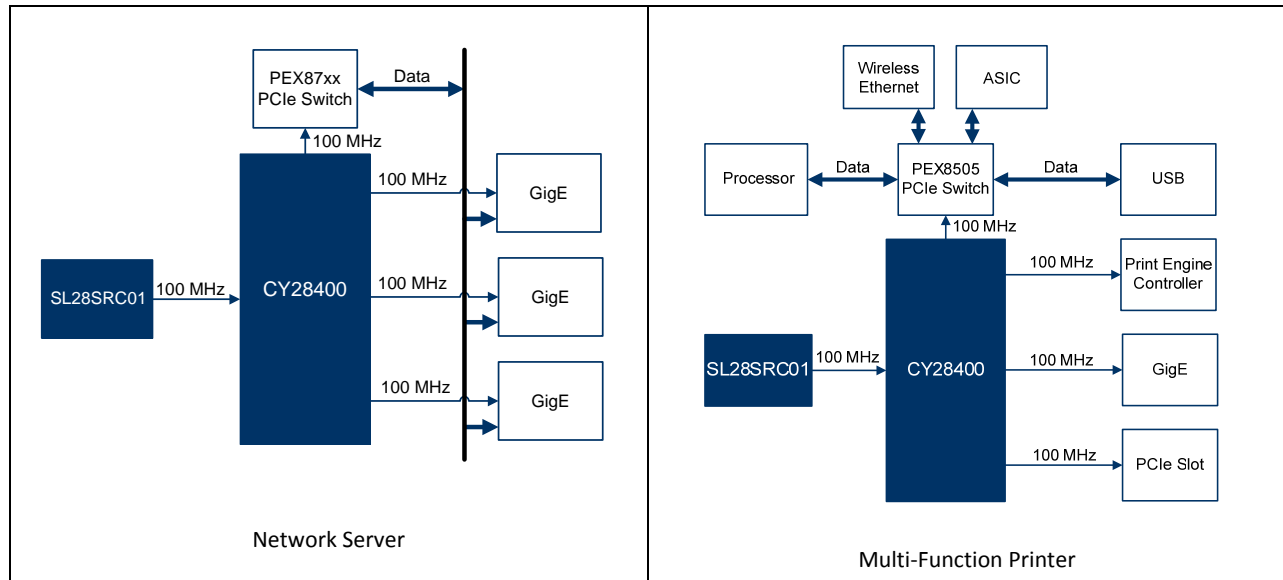


Figure 2. Silicon Labs SL28SRC01 and CY28400-2 and PLX's Draco (PEX87xx, PEX8505) Reference Designs

PLX Technology Reference Designs with Silicon Labs Timing Solutions

Silicon Labs Part Number	PLX's Reference Design Part Number	Control	FOUT (MHz)	VDD	Output	Package
SL28PCIe14	Mira	Pin and I ² C	100	3.3	Differential, low power push-pull with integrated termination resistors	32-QFN (5x5 mm ²)
SL28SRC01	Draco	Pin	100	3.3	Differential low power push-pull with integrated termination resistors	16-TSSOP
CY28400-2	Draco	Pin and SMBus	100	3.3	Differential HCSL	28-SSOP

Resources

- Product data sheets, applications notes, whitepapers: www.silabs.com/Timing
- Timing product selector guide: www.silabs.com/Marcom_Documents/Resources/Timing_Selector_Guide.pdf
- Generate a custom clock: www.silabs.com/ClockBuilder
- Generate a custom XO/VCXO part number: www.silabs.com/VCXOPartnumber
- Generate a custom silicon oscillator part number: www.silabs.com/SiXOPartnumber

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