New Product Announcement

PI6C49S1504T
PI6C4911502D

High-Performance Two- and Four-Output Fanout Clock Buffers Enhance System Timing Margins

The DIODES™ PI6C49S1504T and DIODES™ PI6C4911502D are high-performance clock buffers that support up to 1.5GHz clock frequencies with very low additive jitter.

The PI6C49S1504T is a four-output buffer with a user-selectable output signal format that supports LVPECL, LVDS, and HCSL. Its input type is also selectable between two pairs of differential inputs or a crystal input.

The PI6C4911502D is a two-output LVPECL buffer with two integrated, individual, user-configurable dividers that offer scale-down clock signals to multiple destinations. Its input supports LVPECL, LVDS, CML, and HCSL.

Both devices support 2.5V/3.3V power supplies with separate input and output supply voltages for level shifting.

The PI6C49S1504T is available in the W-QFN5050-32 package and the PI6C4911502D is available in the W-QFN3030-16 package.

The DIODES™ Advantage

The PI6C49S1504T's and PI6C4911502D's low-additive jitter enhances system timing margin in high-speed connectivity.

- **Up to 1.5GHz Output Frequency, Low 30fs Additive Jitter**
  Minimizes phase noise for increased system timing margin
- **PI6C49S1504T Offers User-Selectable LVPECL, LVDS, and HCSL Output Signal Standards**
  Provides the ability for the same IC to meet different system requirements
- **Separate Input and Output Supply Voltages**
  Maintains input-output signal level-shifting
- **PI6C49S1504T Offers User-Selectable Inputs From Either Two Pairs of Differential Inputs or a Crystal Input**
  Improves system design flexibility as the same clock buffer accepts upstream clock inputs and crystal inputs
- **PI6C4911502D has Two User-Configurable Dividers (/2, /4, /8, /16) that Divide Down Input Frequency**
  Removes the need for external clock dividers in systems with lower clock frequencies

Applications

- High-frequency backplanes
- Telecoms
- Servers
- Switches
- Routers
- Gateways

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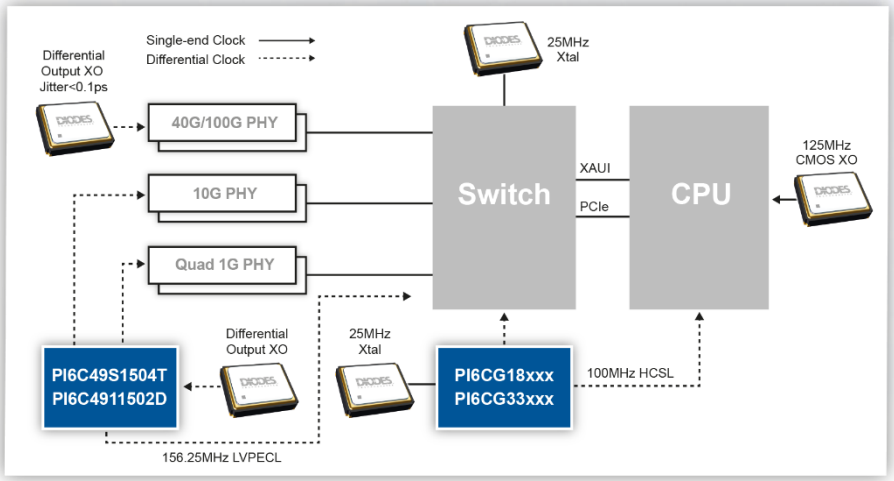
Typical Application Diagram



Differential Clock Buffers Portfolio

Part Number	Outputs	Output Types	Additive Jitter (ps)	Vdd (V)	Maximum Output Frequency (MHz)	Input Types	Output Divider	Temperature Range (°C)	Package
PI6C4911502D	**2**	**LVPECL**	**0.03**	**2.5 3.3**	**1500**	**Differential**	**2**	**-40 to 85**	**W-QFN3030-16**
PI6C49S1504T	**4**	**LVPECL LVDS HCSL**	**0.03**	**2.5 3.3**	**1500**	**Crystal, Differential**	**No**	**-40 to 85**	**W-QFN5050-32**
PI6C4911504D2	4	LVPECL	0.03	2.5 3.3	650	LVCMOS, Differential	2	-40 to 85	TSSOP-20
PI6C4911505	5	LVPECL	0.03	2.5 3.3	1500	Crystal, LVTTL, LVCMOS, Differential	No	-40 to 85	TSSOP-20
PI6C49S1506	6	LVPECL LVDS HCSL	0.03	2.5 3.3	1500	LVCMOS, Differential	No	-40 to 85	T-QFP7070-32
PI6C49S1510B	10	LVPECL LVDS HCSL	0.03	2.5 3.3	1500	Crystal, LVTTL, LVCMOS, Differential	No	-40 to 85	V-QFN7070-48

Ordering Information

Orderable Part Number	Package Code	Package Type	Moisture Sensitivity	Quantity
PI6C49S1504TZHIEX	ZH32	W-QFN5050-32	MSL-1	2500
PI6C4911502DZHIEX	ZH16	W-QFN3030-16	MSL-1	2500