DIODES PI6C49S1510B-EVB High Performance Differential Fanout Buffer User Guide

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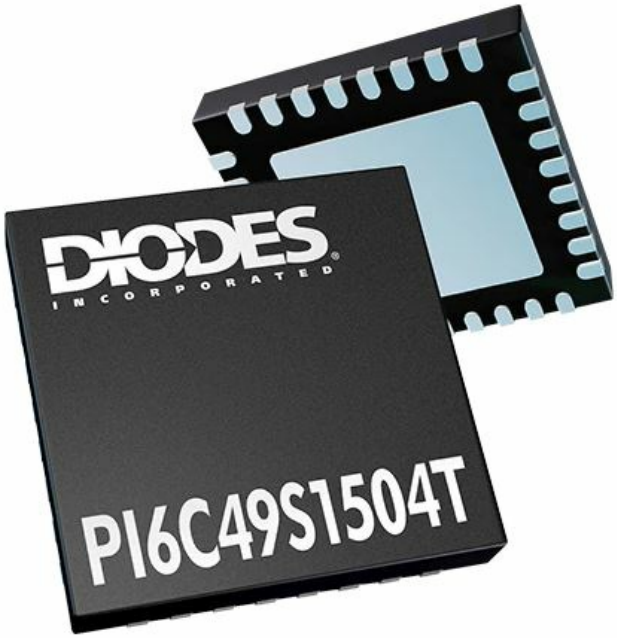
DIODES PI6C49S1510B-EVB High Performance Differential Fanout Buffer



Product Specifications

- **Product Name:** PI6C49S1510B EVB
- **Type:** High-Performance Differential Fanout Buffer
- **Frequency Support:** Up to 1.5G
- **Output Signaling Standards:** User-configurable on a per-bank basis
- **Compliance:** EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2), 2015/863/EU (RoHS 3)
- **Manufacturer:** Diodes Incorporated

Product Usage Instructions

Installation

Follow these steps to install the PI6C49S1510B EVB:

1. Ensure power is off before installation.
2. Connect the fanout buffer to the appropriate power source.
3. Connect input signals to the designated inputs.
4. Configure output signaling standards as needed.
5. Power on the device and verify proper functionality.

Configuration

The PI6C49S1510B EVB allows users to configure output signaling standards per bank. Follow the manufacturer's guidelines to set the desired standards for your application.

Maintenance

Regular maintenance is not required for the PI6C49S1510B EVB. Keep the device clean and free from dust for optimal performance.

Troubleshooting

If you encounter any issues with the device, refer to the user manual for troubleshooting steps. Contact customer support if problems persist.

General Description

The PI6C49S1510B is a high-performance fanout buffer device supporting up to 1.5G frequency. The device integrates a unique feature of having user-configurable output signaling standards on a per-bank basis, which provides a great level of flexibility to users.

Notes:

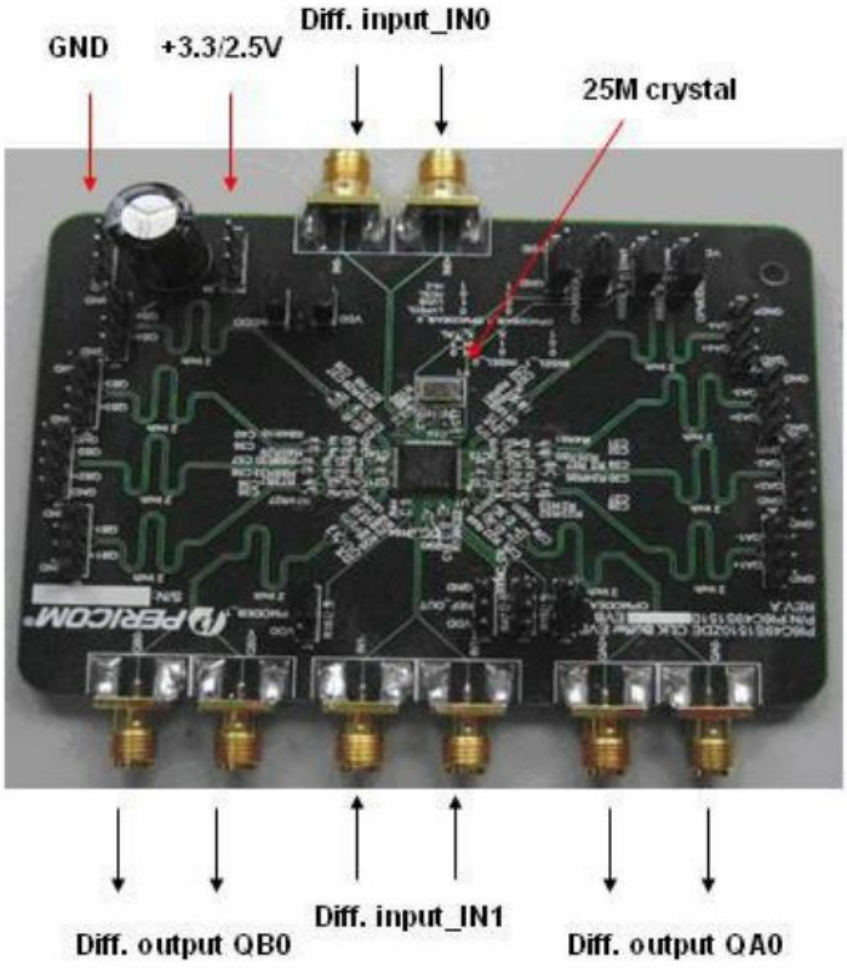
1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant.
2. See **https://www.diodes.com/quality/lead-free/** for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green", and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl), and <1000ppm antimony compounds.

References

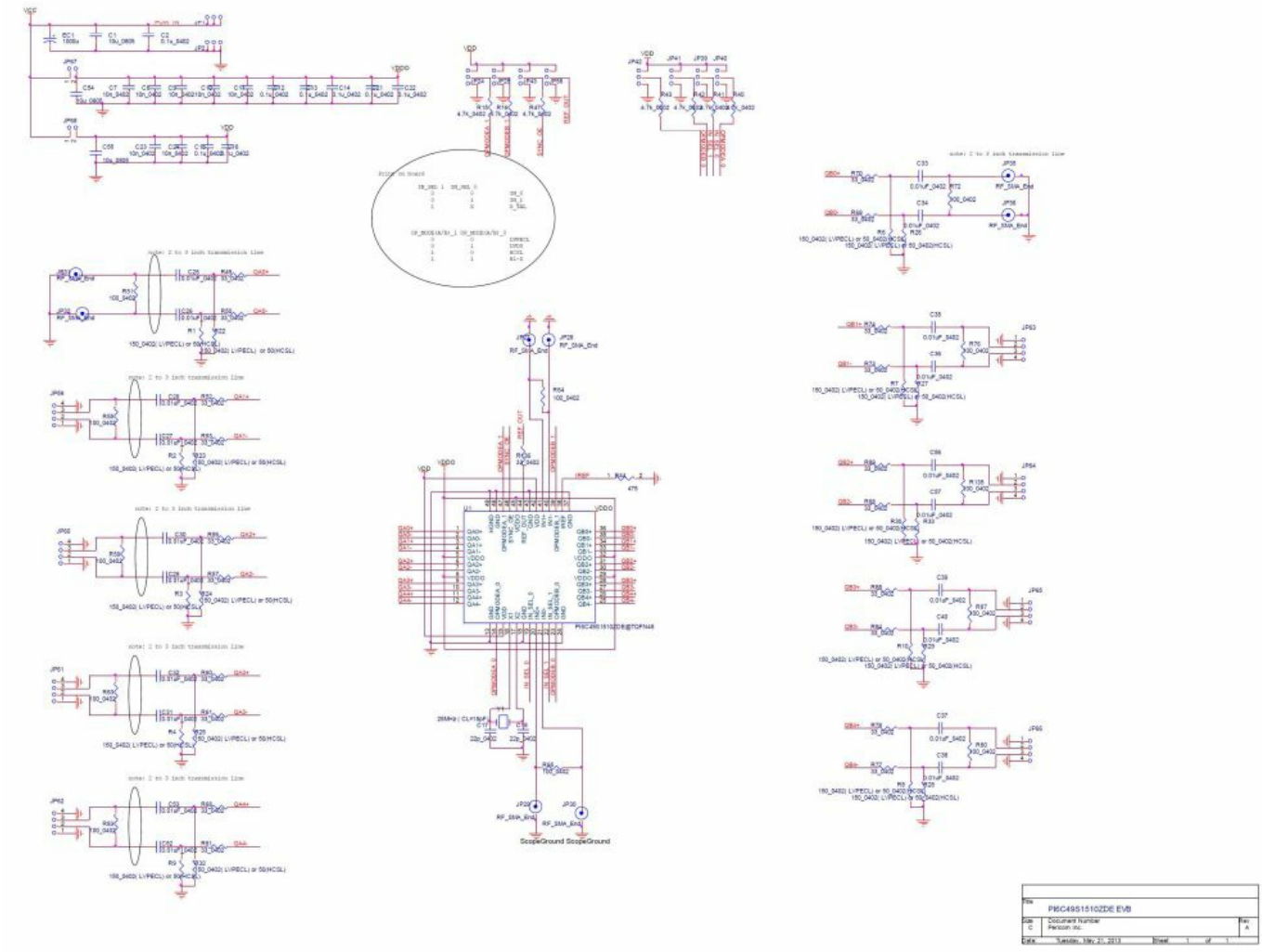
- PI6C48S1510B EVB
- Agilent 54855A oscilloscope
- Agilent E3631A Triple Output DC Power Supply

Test Demo Board

The PI6C49S1510B EVB test connection is shown below. Please refer to the input and output selection logic in the PI6C49S1510B datasheet.



Test EVB Reference Schematic

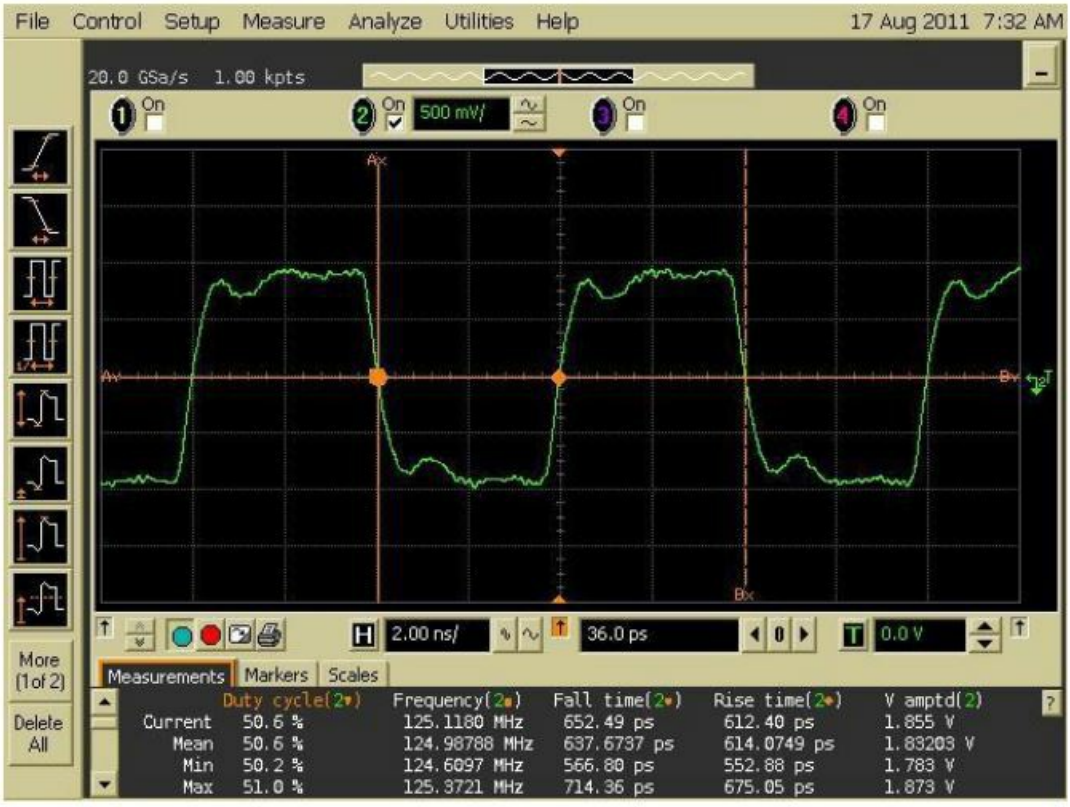


EVB Reference Test Data

LVPECL	125M	156.25M	312.5M	Unit
Tr	322	321	357	ps
Tf	331	327	359	ps
LVDS/Tr	311	304	475	ps
Tf	334	329	521	ps
HCSL/Tr	614	625	525	ps
Tf	637	647	541	ps

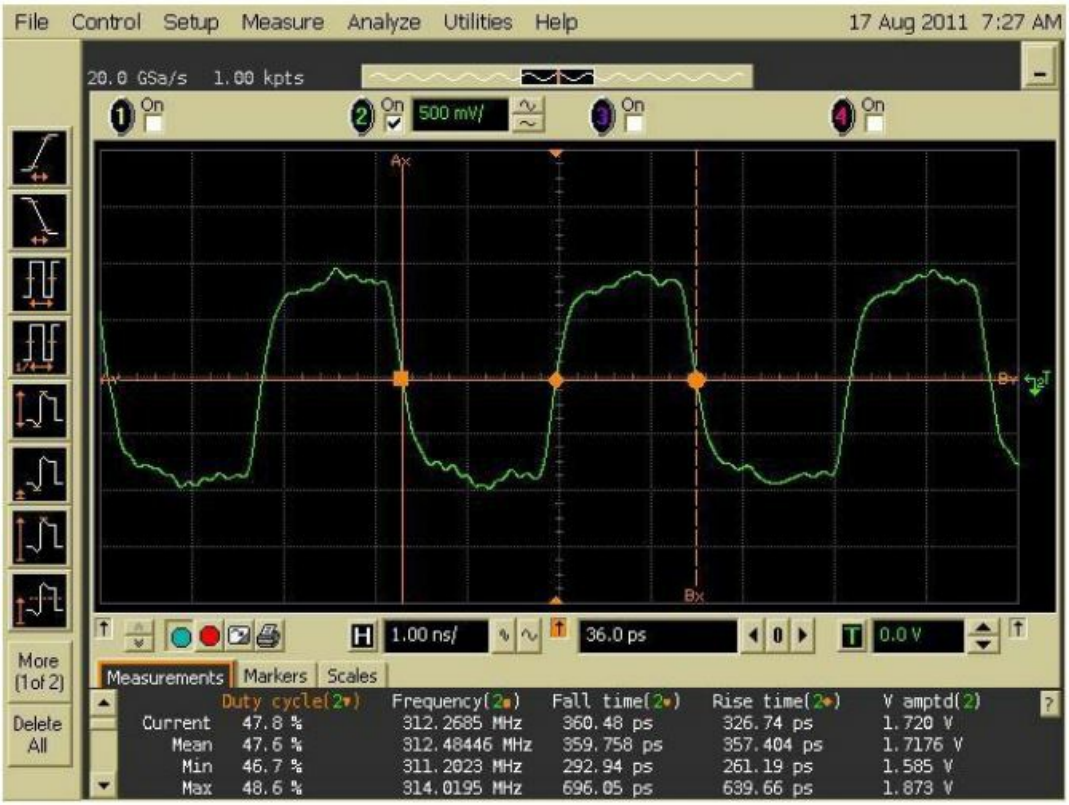
EVB Output Test Waveforms

1. QA Port3 output 125M HCSL



2. QA Port2 output 156.25M LVDS

3. QA Port3 output 312.5M LVPECL



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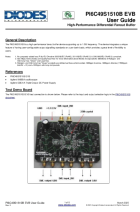
FAQ

- **Can I change the output signaling standards after installation?**
  Yes, the PI6C49S1510B EVB allows user-configurable output signaling standards on a per-bank basis, so you can change them as needed even after installation.
- **Is the device compliant with RoHS directives?**
  Yes, the device is fully compliant with EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2), and 2015/863/EU (RoHS 3).

Documents / Resources

	DIODES PI6C49S1510B-EVB High Performance Differential Fanout Buffer [pdf] User Guide PI6C49S1510B-EVB, PI6C49S1510B-EVB High Performance Differential Fanout Buffer, High Performance Differential Fanout Buffer, Differential Fanout Buffer, Fanout Buffer

References

- Diodes Incorporated - Analog and Discrete Power Solutions
- Diodes Incorporated - Analog and Discrete Power Solutions
- User Manual

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