



Muting SDO Outputs by Using Gennum's 8G and 10G CDR Products

Introduction

Gennum's 8G and 10G CDRs are currently not designed to mute the SDO outputs automatically based on the status of the input. This application note will discuss a method, which can be used to mute the SDO output of Gennum's CDRs by using different logic control signals, such as LOS and LOL.

This application note applies to Gennum's GN1113, GN1114, GN2003S, GN2004S, GN2013A, GN2014A, GN2023, and GN2024.

Recommended Circuit

The outputs of the CDR can be muted by using a P-channel MOSFET (M1^a) to power-on / power-off the output stage of the device, which effectively mutes the SDO output, while the rest of circuitry remains operational.

Figure A shows the recommended schematic.

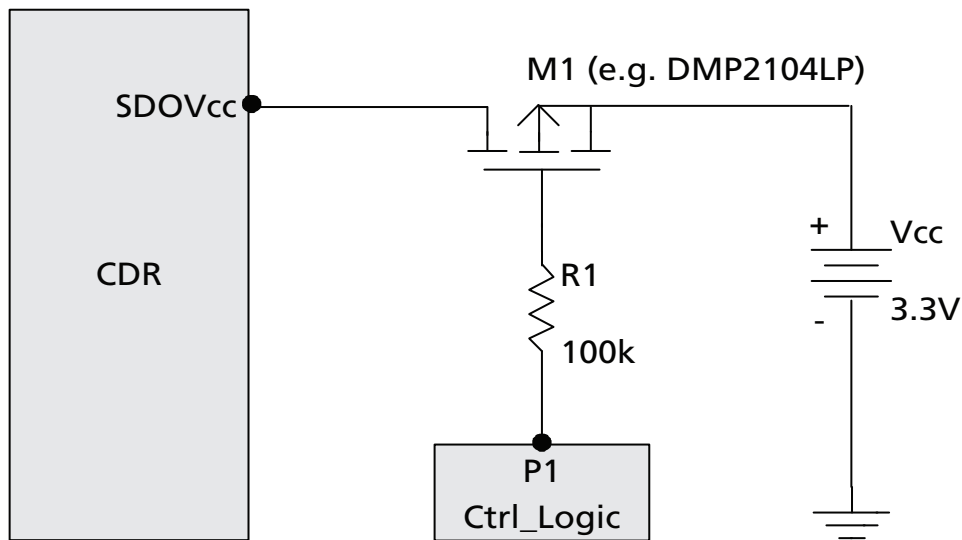


Figure A: Recommended schematic to mute the CDR's output under no input signal condition

LOS, LOL, and TIA's RSSI outputs, or any logical combination of these signals can be used for the control circuit.

Careful analysis of the application requirements should be considered, when deciding on the control logic schematic.

a. Gennum has tested the part DMP2104LP; it is known to work properly. Other similar parts may be substituted for M1.

Related Documentation

Gennum Documents

- GN1113 8.5 Gb/s Fibre Channel Rx Repeater;
DocID: 44368_Doc*.pdf
- GN1114 8.5Gb/s Fibre Channel CDR with VCSEL Driver;
DocID: 44958_Doc*.pdf
- GN2003S 9.95-11.3Gb/s Limiting Amplifier plus Clock and Data Recovery;
DocID: 36470_Doc*.pdf
- GN2004S 9.95 - 11.3 Gb/s Equalizer plus Clock and Data Recovery;
DocID: 36471_Doc*.pdf
- GN2013A 9.95-11.3Gb/s Lim Amp plus Clock and Data Recovery IC with Manual
Slice Level Adjust;
DocID: 38081_Doc*.pdf
- GN2014A XFP Tx Signal Conditioner with VCSEL Driver;
DocID: 39260_Doc*.pdf
- GN2023 9.95 - 11.3 Gb/s Limiting Amplifier plus Clock and Data Recovery;
DocID: 43121_Doc*.pdf
- GN2024 9.95 - 11.3 Gb/s Equalizer plus Clock and Data Recovery;
DocID: 43785_Doc*.pdf

Other Company's Document

- DMP2104LP P-Channel Enhancement Mode Field Effect Transistor,
Document number: DS31091 Rev. 6 - 2
Contact Diodes Incorporated (www.diodes.com) for further information.

Revision History

Version	ECR	Date	Changes and / or Modifications
0	150686	October 2008	New document.

DOCUMENT IDENTIFICATION ADVANCE INFORMATION NOTE

The product is in a development phase and specifications are subject to change without notice. Gennum reserves the right to remove the product at any time. Listing the product does not constitute an offer for sale.

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