TGA4959-SL
32Gb/s Differential Modulator Driver

TriQuint
SEMICONDUCTOR

Applications

- 40 Gb/s Optical Market: DQPSK and DP-BPSK

TGA4959
5010 248
D109458

Product Features

- 40 Gb/s Performance
- Differential Input and Output
- Adjustable Output Amplitude, 6 Vpp – 9 Vpp
- Low Additive RMS Jitter, 580 fsec
- High Output Drive, 9 Vpp differential output with 1 Vpp differential input
- Gain, 24 dB at 16 GHz
- Low DC Power Dissipation, 2.2 W for Vout = 8Vpp at Vd=5 V
- Rise and Fall Times 13 psec
- Package Size: 10 x 7 x 2 mm

Typical Electrical Eye, 32 Gbps

Vout = 8Vpp, Vin = 0.5 Vpp per side, Vd = 5V, Id = 428 mA

General Description

The TriQuint TGA4959-SL is a differential input and output optical modulator driver designed to operate at frequencies that target the 40 Gb/s optical market. The TGA4959-SL consists of a wideband amplifier assembled in a surface mount package combined with a minimum of external components. A single TGA4959-SL placed between the MUX and Optical Modulator provides OEMs with a differential modulator driver surface mount solution.

The TGA4959-SL provides Metro and Long Haul designers with system critical features such as: low power dissipation, low rail ripple, high voltage drive capability (6 Vpp amplitude adjustable up to 9 Vpp), and very low output jitter.

Several of the bias pins on the TGA4959-SL are internally set to simplify the users PCB design. Alternatively, these same pins can be adjusted by the user, if desired. Duplicate pins are available to enable biasing from either side of the package and the package can be operated with as few as four separate power supplies, if desired.

The TGA4959-SL is RoHS compliant. Evaluation boards are available upon request.

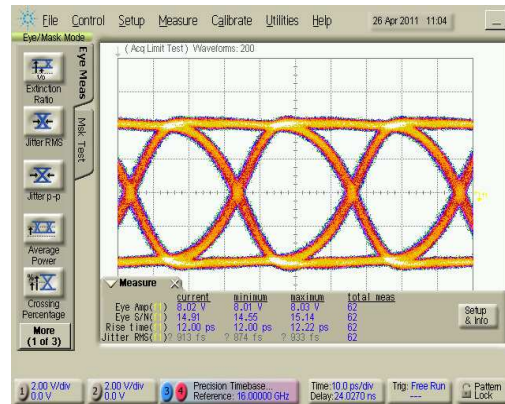For more information, please contact TQS sales.
Web: **www.triquint.com**   Tel: +1.972.994.8465
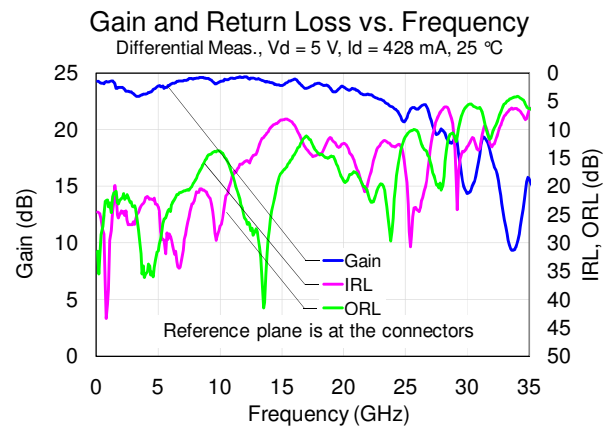Email: **info-sales@tqs.com**   Fax: +1.972.994.8504

Typical S-Parameters

Vd = 5 V, Idtot = 428 mA,
Vc3 = 0.53 V, Vg2 = -0.9 V, Vg3 = -1.6 V

Gain and Return Loss vs. Frequency
Differential Meas., Vd = 5 V, Id = 428 mA, 25 ℃

Ordering Information

Part No.	ECCN	Description
TGA4959-SL	5A991.b	32 Gb/s Diff Mod Driver

Disclaimer: Subject to change without notice

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