

TGA4942-SL

43Gb/s DPSK Modulator Driver



Applications

- 40 Gb/s Optical Market: DPSK

Product Features

- 43 Gb/s Performance
- Integrated high frequency bias tee
- Single Ended Input and Output
- Adjustable Output Amplitude, 3 Vpp – 8 Vpp
- Low Additive RMS Jitter, 400 fsec
- High Output Drive, 8Vpp with 0.4 Vpp Input
- Gain, 27 dB at 20 GHz
- Low DC Power Dissipation, 1.4 W for Vout = 7 Vpp at Vd=6 V
- Rise and Fall Times <10 psec
- Hot Pluggable
- Package Size: 16 x 8 x 3.7 mm

General Description

The TriQuint TGA4942-SL is a single channel optical modulator driver amplifier designed for the 43 Gb/s optical market. The TGA4942-SL is a compact SMT using three high performance wideband amplifiers and an integrated broadband bias tee assembled in a 16 x 8 x 3.7 mm package, requiring a minimum of off-chip components.

A single TGA4942-SL placed between the MUX and Optical Modulator provides OEMs with a modulator driver surface mount solution.

The TGA4942-SL provides Metro and Long Haul designers with system critical features such as: low power dissipation, high signal to noise ratio (SNR), high voltage drive capability (3 Vpp amplitude adjustable up to 8 Vpp), fast rise and fall times, low output jitter, and low input drive sensitivity (0.4 Vpp – 1 Vpp at Vout = 8Vpp).

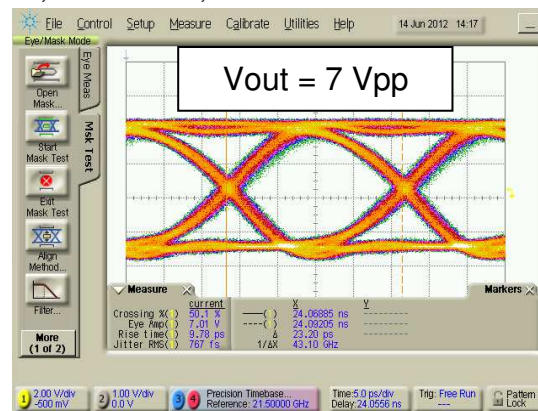
The TGA4942-SL is RoHS compliant. Evaluation boards and bias boards are available upon request.



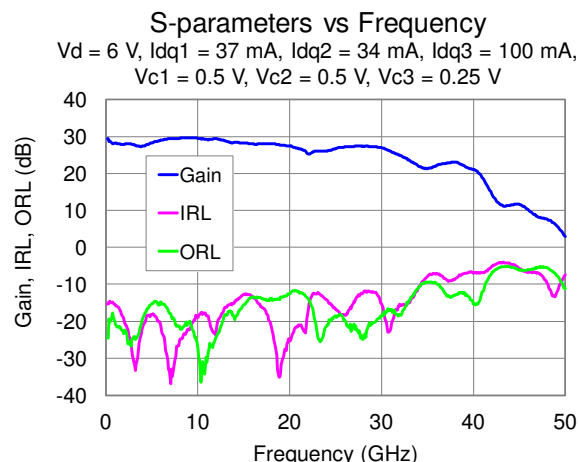
16-pin 16x8 mm SMT

Typical Performance – Eye Diagram

Bias Conditions: Vd = 6 V, Vc1 = Vc2 = 0.5 V, Id1 = 41 mA, Id2 = 67 mA, Id3 = 148 mA.



Typical Performance – S-Parameters



Ordering Information

Part No.	ECCN	Description
TGA4942-SL	5A991.b	43 Gb/s DPSK Modulator Driver