

**Features**

- Read + 3 Write Channel laser driver with oscillator & fast I/V amplifier
- Rise time = 0.8 nsec
- Fall time = 0.8 nsec
- 200V/μs I/V amplifier
- 100X gain, 100mA low noise read channel
- 200X gain, 200mA write channel
- Two 100X gain, 100mA write channels
- 500MHz, 100mAp-p Oscillator with dual frequency and amplitude control
- 3.3V compatible logic signals
- Single +5V supply

**Applications**

- CD-RW to 16X
- CD-R to 32X
- Writable Optical Disk Drives

**Ordering Information**

Part No.	Temp. Range	Package	Outline #
EL6281CU	0°C to +70°C	QSOP-24	MDP0040
EL6281CL	0°C to +70°C	LPP-24	MDP0046

**General Description**

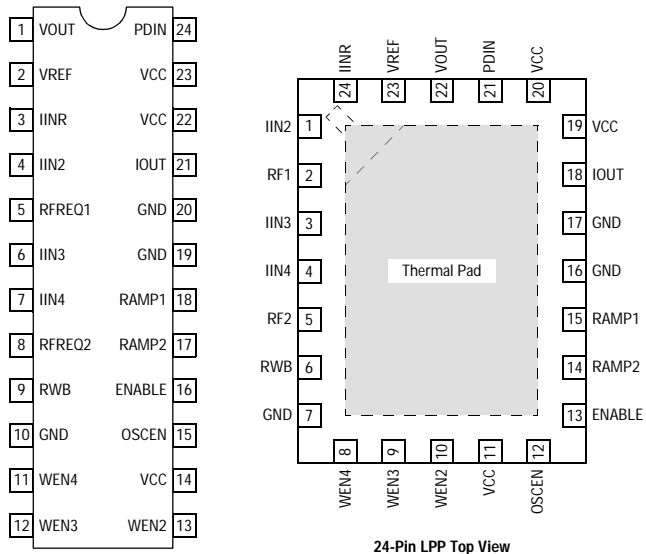
The EL6281C is a combination read + 3 write level laser driver with I/V amplifier. A dual amplitude, dual frequency RF oscillator sums on the output for laser noise reduction during read or write. All these functions are provided in 24-lead QSOP and LPP packages.

The ENABLE pin enables the read & write channels. Positive current supplied to the IIN lines, through user selected resistors, allow the full scale range of each amplifier to be matched to the full scale range of the users control DACs. When the WEN pins are switched low, the respective current is summed to the output with 1ns rise and fall times.

The 100mAp-p (max) oscillator is switched on and off by the OSCEN line. The R/W line allows the oscillator to operate at one amplitude and frequency when R/W is high, and another amplitude and frequency when R/W is low.

The entire chip is powered down when ENABLE is low. The user can calibrate the gain of the I/V amplifier. With a slew rate around 200V/μs, the I/V amplifier can normally settle to less than 1% within 30ns.

**Connection Diagram**



Note: All information contained in this data sheet has been carefully checked and is believed to be accurate as of the date of publication; however, this data sheet cannot be a "controlled document". Current revisions, if any, to these specifications are maintained at the factory and are available upon your request. We recommend checking the revision level before finalization of your design documentation.

# ***EL6281C - Product Brief***

*4-Channel Laser Driver with APC Amp*

## **General Disclaimer**

Specifications contained in this data sheet are in effect as of the publication date shown. Elantec, Inc. reserves the right to make changes in the circuitry or specifications contained herein at any time without notice. Elantec, Inc. assumes no responsibility for the use of any circuits described herein and makes no representations that they are free from patent infringement.

***élantec***

HIGH PERFORMANCE ANALOG INTEGRATED CIRCUITS

## **Elantec Semiconductor, Inc.**

675 Trade Zone Blvd.

Milpitas, CA 95035

Telephone: (408) 945-1323

(888) ELANTEC

Fax: (408) 945-9305

European Office: +44-118-977-6020

Japan Technical Center: +81-45-682-5820

## **WARNING - Life Support Policy**

Elantec, Inc. products are not authorized for and should not be used within Life Support Systems without the specific written consent of Elantec, Inc. Life Support systems are equipment intended to support or sustain life and whose failure to perform when properly used in accordance with instructions provided can be reasonably expected to result in significant personal injury or death. Users contemplating application of Elantec, Inc. Products in Life Support Systems are requested to contact Elantec, Inc. factory headquarters to establish suitable terms & conditions for these applications. Elantec, Inc.'s warranty is limited to replacement of defective components and does not cover injury to persons or property or other consequential damages.