

Features

- Voltage-controlled output current source (requiring one external set resistor)
- Current-controlled output current source.
- Rise time = 3.0 ns typ.
- Fall time = 3.5 ns typ.
- On-chip oscillator w/ frequency and amplitude control by use of external resistors to ground.
- Oscillator to 500 MHz typ.
- Oscillator to 100 mA pk/pk typ.
- Single +5V supply ($\pm 10\%$)
- Current amplification = 100
- TTL/CMOS control signals

Applications

- MO drives
- Mini-Disc drives
- Writable optical drives
- Laser diode current switching

Ordering Information

Part No	Temp. Range	Package	Outline #
EL6272CY	0°C to +70°C	MSOP10	MDP0043

General Description

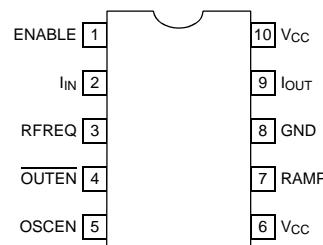
The EL6272C is a single channel laser diode current amplifier that provides controlled current to a grounded laser diode. The amplifier can provide up to 200 mA of DC or pulsed current with switching speeds of approximately three nanoseconds rise/fall time. The level of the output current is set by an analog voltage applied to an external resistor which converts the voltage into a current at the I_{IN} pin (virtually ground). The current seen at this pin is then amplified by 100X to become a current source at pin I_{OUT} .

An on-chip 500 MHz oscillator is provided to allow current modulation when in read mode. This is turned on when the $OSCEN$ pin is held high. Complete control of amplitude and frequency is set by two external resistors connected to ground at pins $RFREQ$ and $RAMP$ (see graphs in this data sheet for further explanation).

Output write current pulses are enabled when an 'L' signal is applied to the $OUTEN$ pin.

The external resistor allows the user to accurately and independently set the amplifier transconductance by applying a voltage to the set resistor, without restriction on the voltage range, thus ensuring broad voltage DAC compatibility. Alternatively, the I_{IN} pin can be biased from a current DAC or other current source.

Connection Diagram



Complete Product Specifications Elantec Technical Support:

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EL6272C - Product Brief

1-Ch Laser Diode Driver + Oscillator

General Disclaimer

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HIGH PERFORMANCE ANALOG INTEGRATED CIRCUITS

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