élantec
HIGH PERFORMANCE ANALOG INTEGRATED CIRCUITS

EL6240C - Product Brief

Dual Laser Driver with APC Amp

Features

- Read + 2 write channel laser driver with oscillator and fast I/V amplifier plus a separate ROM laser driver with oscillator
- 200V/µs I/V amplifier
- 100X gain, 100mA low noise read channel
- 250X gain, 250mA and 150X gain, 150mA write channels
- 500MHz, 100mA$_{P-P}$ oscillator
- Write rise/fall times = 0.8ns
- Single +5V supply

Applications

- Combo CD-RW + DVD-ROM
- CD-RW to 16X
- CD-R to 32X
- Writable optical disk drives

Ordering Information

Part No	Temp. Range	Package	Outline #
EL6240CU	-40°C to +85°C	24-Pin QSOP	MDP0040
EL6240CL	-40°C to +85°C	24-Pin LPP	MDP0046

General Description

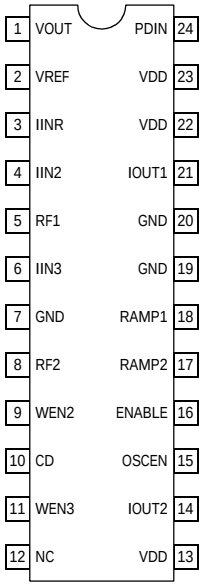
The EL6240C is a combination read + 2 write level laser driver and IV amplifier, with an extra read + oscillator ROM channel for use in dual-laser 'combo' applications. A separate (amplitude and frequency) oscillator modulates the selected output for laser noise reduction during read or write.

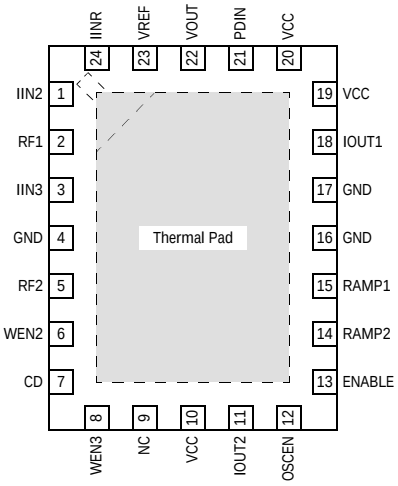
The CD pin, when high, selects the CD (write) laser. Positive current supplied to the IIN lines, through a user selected external resistor, allow the full scale range of each amplifier to be matched to the full scale range of the users control DACs. When the write laser is selected, and the WEN pins are switched low, the respective current is summed to the output with 1ns rise and fall times. When the CD pin is low, the ROM laserdiode is driven by output I_{OUT2}, and no current will appear at output I_{OUT1}.

The 100mA$_{P-P}$ (max) oscillator is switched on and off by the OSCEN line. The CD line allows the oscillator to operate at different amplitudes and frequencies for each laser.

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

Connection Diagrams





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General Disclaimer

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