

3-Channel Laser Diode Driver + Oscillator

élantec

The EL6216 is a high-performance three channel laser driver that provides controlled current to a grounded laser diode. Write channels 2 and 3 should be used as the write channels, with switching speeds of approximately one nanosecond rise/fall time. All three channels are summed together at the I_{OUT} output, allowing the user to create multilevel waveforms in order to optimize laser diode performance. 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 to become a current source at pin I_{OUT}.

An on-chip 500MHz oscillator is provided to allow output current modulation when in any 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 R_{FREQ} and R_{AMP} (see graphs in this data sheet for further explanation).

Ordering Information

PART NUMBER	PACKAGE	TAPE & REEL	PKG. DWG. #
EL6216CU	24-Pin QSOP	-	MDP0040
EL6216CU-T7	24-Pin QSOP	7"	MDP0040
EL6216CU-T13	24-Pin QSOP	13"	MDP0040

Features

- Voltage-controlled output current source requiring one external set resistor per channel
- Rise time = 0.8ns
- Fall time = 0.8ns
- On chip oscillator with frequency and amplitude control by use of external resistors to ground
- Oscillator to 500MHz
- Oscillator to 100mA_{PK/PK}
- Single +5V supply (±10%)
- Disable feature for power-up protection and power savings

Applications

- CD-RW applications
- Writable optical drives
- Laser diode current switching

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