High Voltage EO Modulator/Switch Driver



(up to 2kV)



DATASHEET





These HVED series drivers produce alternative high voltage pulses up to 2kV with a fast rise/fall time of <10ns. The + - driving scheme removes charge building up inside an electro-optical crystal, which reduces the on/off ratio and stability. The voltage amplitude and pulse width are proportional to the input trigger signal. For voltage less than 500V, we provide cost-effective PCB. For voltage higher than 500V is dangerous to operate; thus, great caution must be applied at all times. For output voltage exceeding 1000V, the minimum voltage is 100V.

Features

- 2kV High Voltage
- 10ns Rise/Fall
- Analog Response

Applications

EO Device Control

Specifications

Parameter	Min	Typical	Max	Unit
Output Voltage	DC		2000	V
Rise/Fall Time [1]		7	10	ns
Pulse Width	0.2		8000	μs
Delay Time			200	ns
Repetition Rate		0.5	2 [4]	kHz
Pulse Jitter	1		20	ps
Internal Timing ^[2]		100		μs
Operating Temperature [3]	-5		40	°C
Input Power				
Humidity 90%		noncondensing		
Storage Temperature	-40		85	°C

Notes:

- [1]. At 10-90% level. Also affect by amplitude and capacitor load
- [2]. The driver refreshes every 100 µs, which causes a small ripple and skip of triggering.
- [3]. The driver automatically shuts down at 70°C
- [4]. Require additional cooling

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Rev 03/12/24

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Mechanical Footprint Dimensions (mm)

Ordering Information

						1	1
Prefix	Max Voltage	Package	Alternating	Extra Cooling	Repetition		
HVED-	400V = 04 500V = 05 1000V = 10 1200V = 12 Special = 00	PCB = 1 Box = 2 Special = 0	None = 1 Yes = 2	Non = 1 Yes = 2	100kHz ^[1] = 1 Special = 0		

[1]. 400V 100kHz is 200kHz at 200V

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^{*}Product dimensions may change without notice. This is sometimes required for non-standard specifications.