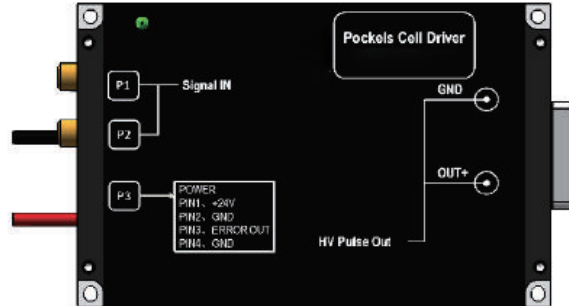
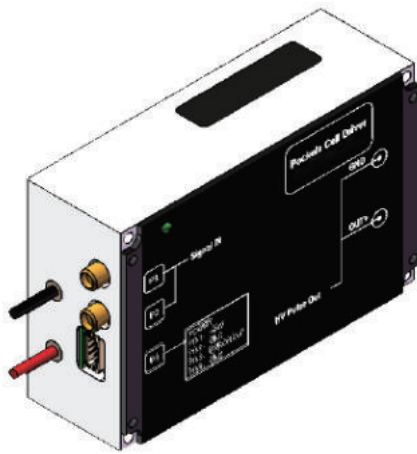




# **Pockels Cell Drive Power Supply Product Manual**

# CL-PCDH Series Pressurized Step-down Crystal Driver

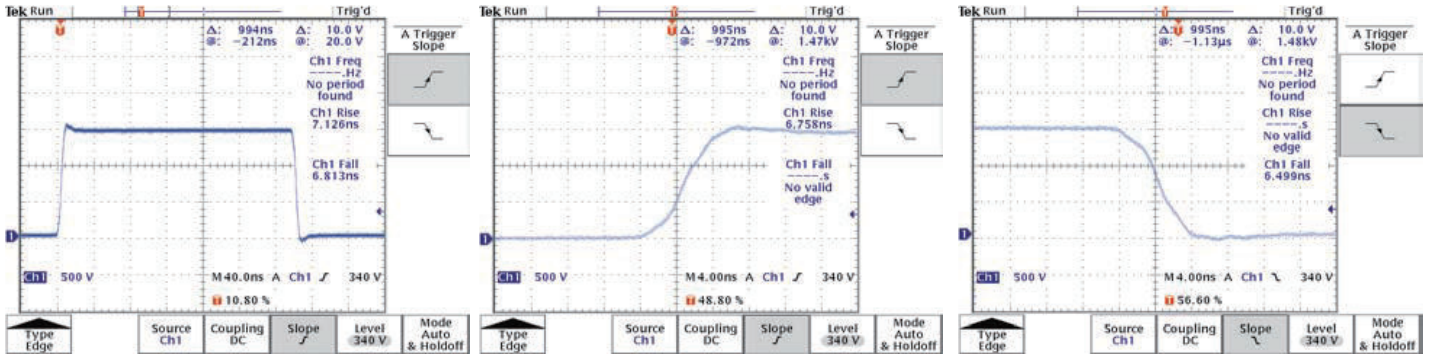


## PARAMETERS

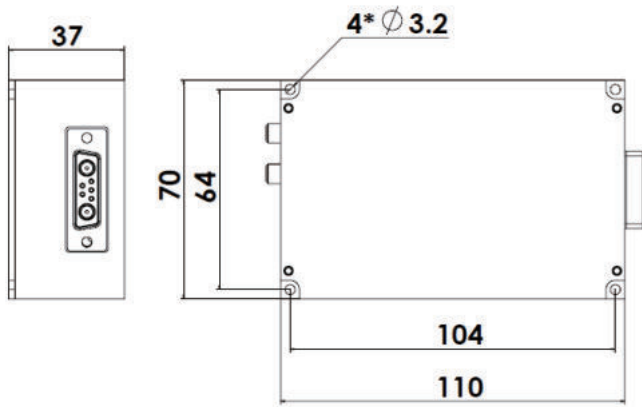
Series	CL-PCDH series			CL-PCDH-S series		
Model	CL-PCDH-250-3.6	CL-PCDH-500-2.6	CL-PCDH-500-1.8	CL-PCDH-S-250-3.6	CL-PCDH-S-500-2.6	CL-PCDH-S-500-1.8
High voltage maximum rated Voltage	3.8 kV	2.8 kV	2.0 kV	3.8 kV	2.8 kV	2.0 kV
High voltage maximum working voltage	3.6 kV	2.6 kV	1.8 kV	3.6 kV	2.6 kV	1.8 kV
High voltage maximum repetition rate	250 kHz	500kHz	500kHz	250 kHz	500kHz	500kHz
Pulse duration	100–5000 ns			15–1250 ns		
High voltage pulse rise time	<7 ns	<6.5 ns	<6ns	<7 ns	<6.5 ns	<6ns
High voltage pulse fall time	<7 ns	<6.5 ns	<6 ns	<7 ns	<6.5 ns	<6ns
External trigger signal amplitude	3.5–5 V (50 Ω load)			3.5–5 V (50 Ω load)		
External signal input interface	SMA			SMA		
High voltage output interface	7w2			7w2		
Indicator light	Power indication			Power indication		
Cooling method	Forced air cooling or water cooling (Water cooling plate accessories available)			Forced air cooling or water cooling (Water cooling plate accessories available)		
Volume	110*70*37 mm (L*W*H)			110*70*37 mm (L*W*H)		
High voltage power	<75 W OEM-HV-80	<120W OEM-HV-120	<120W OEM-HV-120	<75 W OEM-HV-80	<120W OEM-HV-120	<120W OEM-HV-120
Power supply	24V			24V		



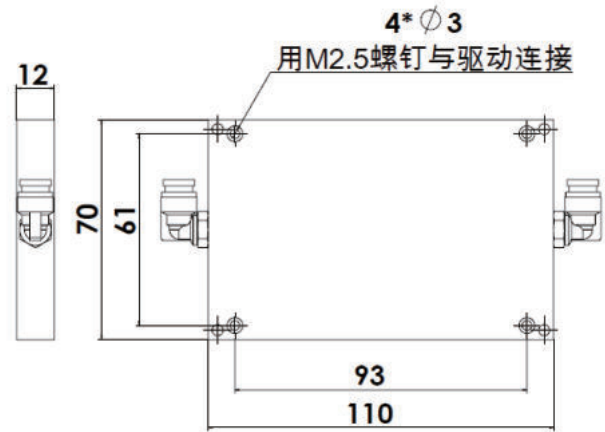
# CL-PCDH Series Pressurized Step-down Crystal Driver



## SIZE DIAGRAM (mm)

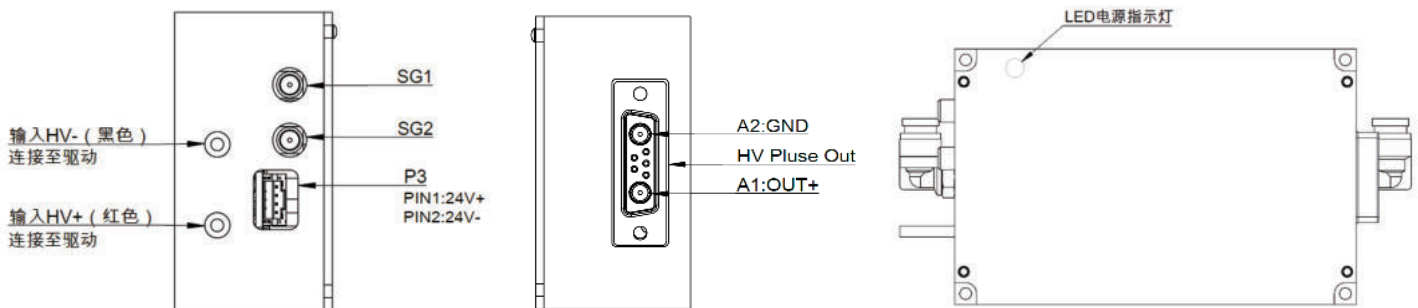


CL-PCDH series drive size diagram



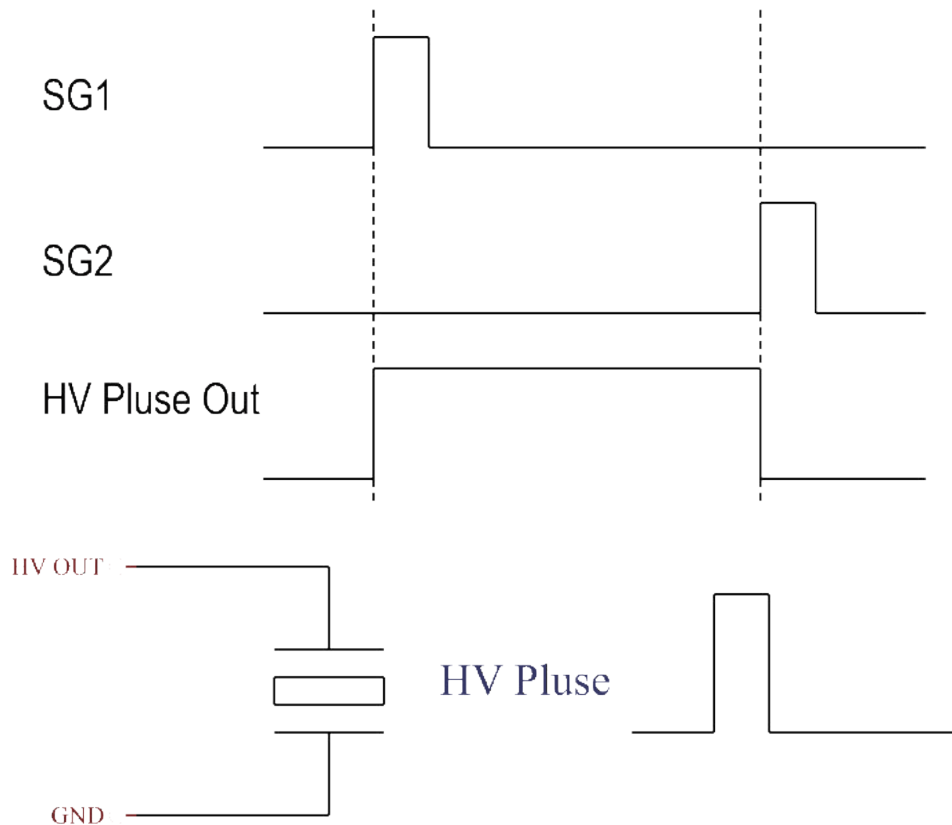
Water cooling plate size diagram

## ELECTRICAL CONNECTION DIAGRAM (mm)



# CL-PCDH Series Pressurized Step-down Crystal Driver

## SIGNAL CONTROL DIAGRAM



### Note:

The "HVPLUSEOUT" output signal cannot be measured directly, only in a coupled manner.

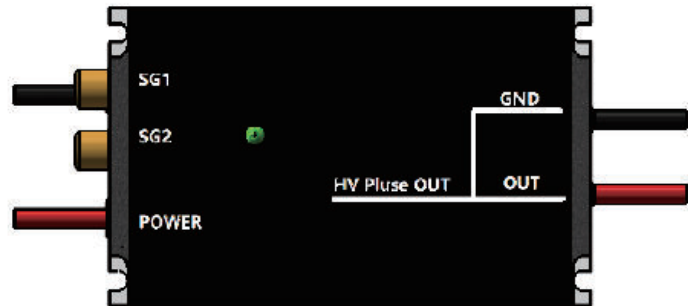
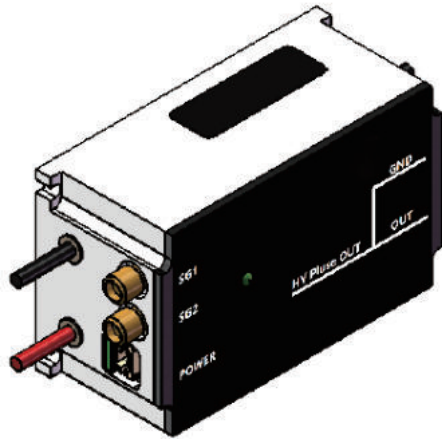
It is forbidden to measure the drive output directly with a high-voltage probe, as direct measurement will result in direct damage to the drive.

SG1 and SG2 are 3.5V~5V signals with 50Ω load impedance. (Modulate the signal output impedance of the signal generator by 50Ω output).

SG1, SG2 must first add SG1 and then SG2 when adding signals, and the off signal must be SG2 first Turn off SG1 again.



# CL-PCDS Series Pressurized Step-down Crystal Driver

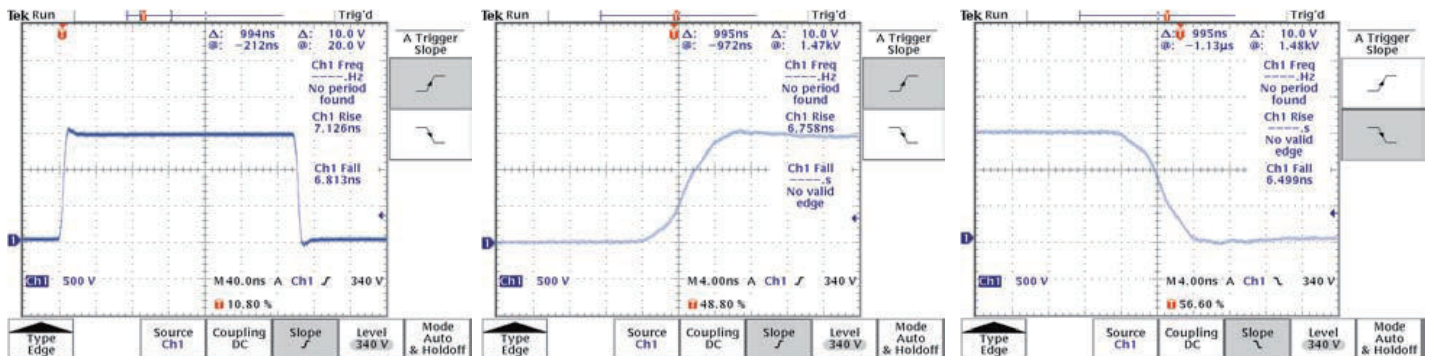


## PARAMETERS

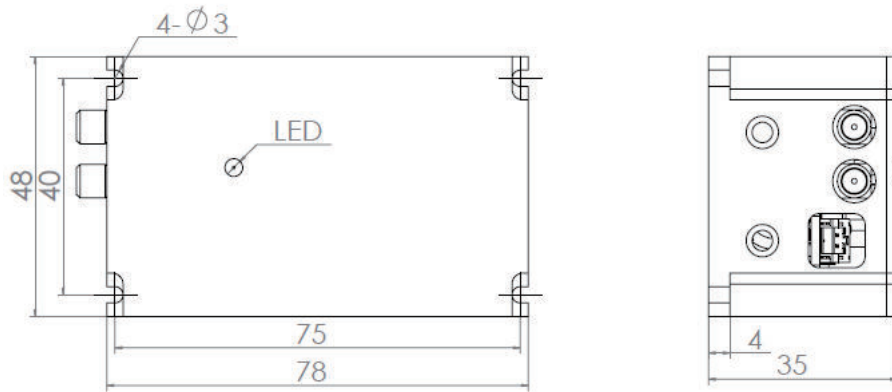
Series	CL-PCDS series		CL-PCDS-S series	
Model	CL-PCDS-200-2.5/ CL-PCDS-500-2.5	CL-PCDS-250-1.8/ CL-PCDS-600-1.8	CL-PCDS-S-200-2.5/ CL-PCDS-S-500-2.5	CL-PCDS-S-250-1.8/ CL-PCDS-S-600-1.8
High voltage maximum rated Voltage	2.8 kV	2.0 kV	2.8 kV	2.0 kV
High voltage maximum working voltage	2.5 kV	1.8 kV	2.5 kV	1.8 kV
High voltage maximum repetition rate	200 kHz/500 kHz	250 kHz/600 kHz	200 kHz/500 kHz	250 kHz/600 kHz
Pulse duration	100 – 5000 ns		15 – 1250 ns	
High voltage pulse rise time	<6.5 ns	<6 ns	<6.5 ns	<6 ns
High voltage pulse fall time	<6.5 ns	<6 ns	<6.5 ns	<6 ns
External trigger signal amplitude	3.5 – 5 V (50 Ω load)		3.5 – 5 V (50 Ω load)	
External signal input interface	SMA		SMA	
Indicator light	Power indication		Power indication	
Cooling method	Forced air cooling or water cooling (Water cooling plate accessories available)		Forced air cooling or water cooling (Water cooling plate accessories available)	
Volume	78*48*35 mm (L*W*H)		78*48*35 mm (L*W*H)	
High voltage power	200kHz: OEM-HV-80 500kHz: OEM-HV-120	250kHz: OEM-HV-80 600kHz: OEM-HV-120	200kHz: OEM-HV-80 500kHz: OEM-HV-120	250kHz: OEM-HV-80 600kHz: OEM-HV-120
Power supply	DC24V		DC24V	



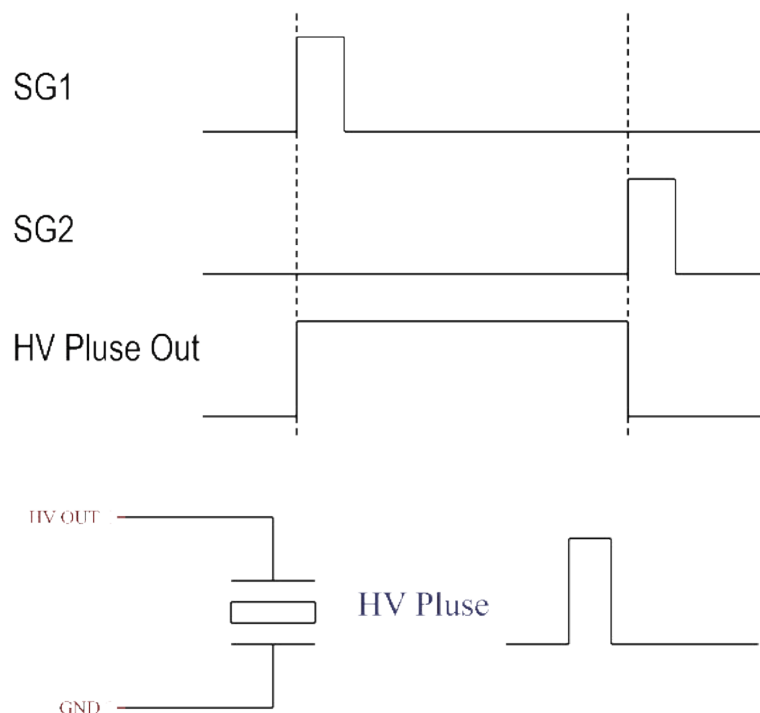
# CL-PCDS Series Pressurized Step-down Crystal Driver



## SIZE DIAGRAM (mm)



## SIGNAL CONTROL DIAGRAM

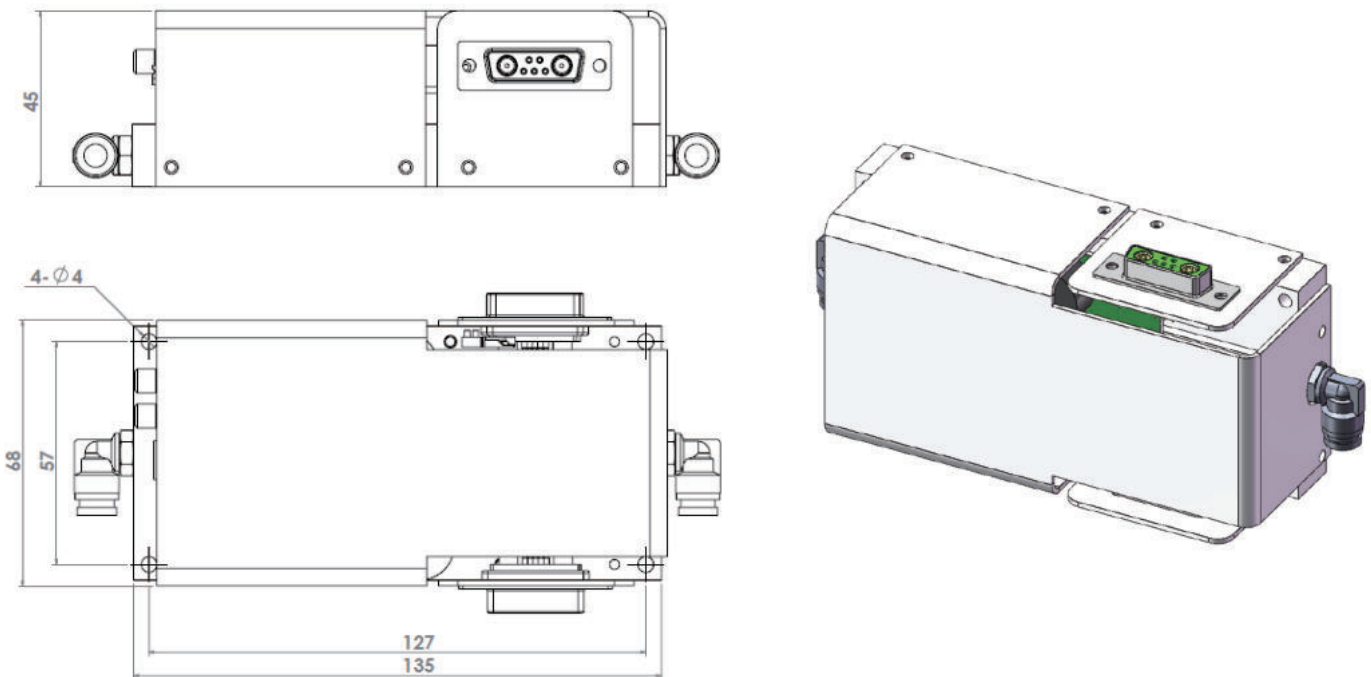


# CL-PCDH-1M Series Pressurized Step-down Crystal Driver

## PARAMETERS

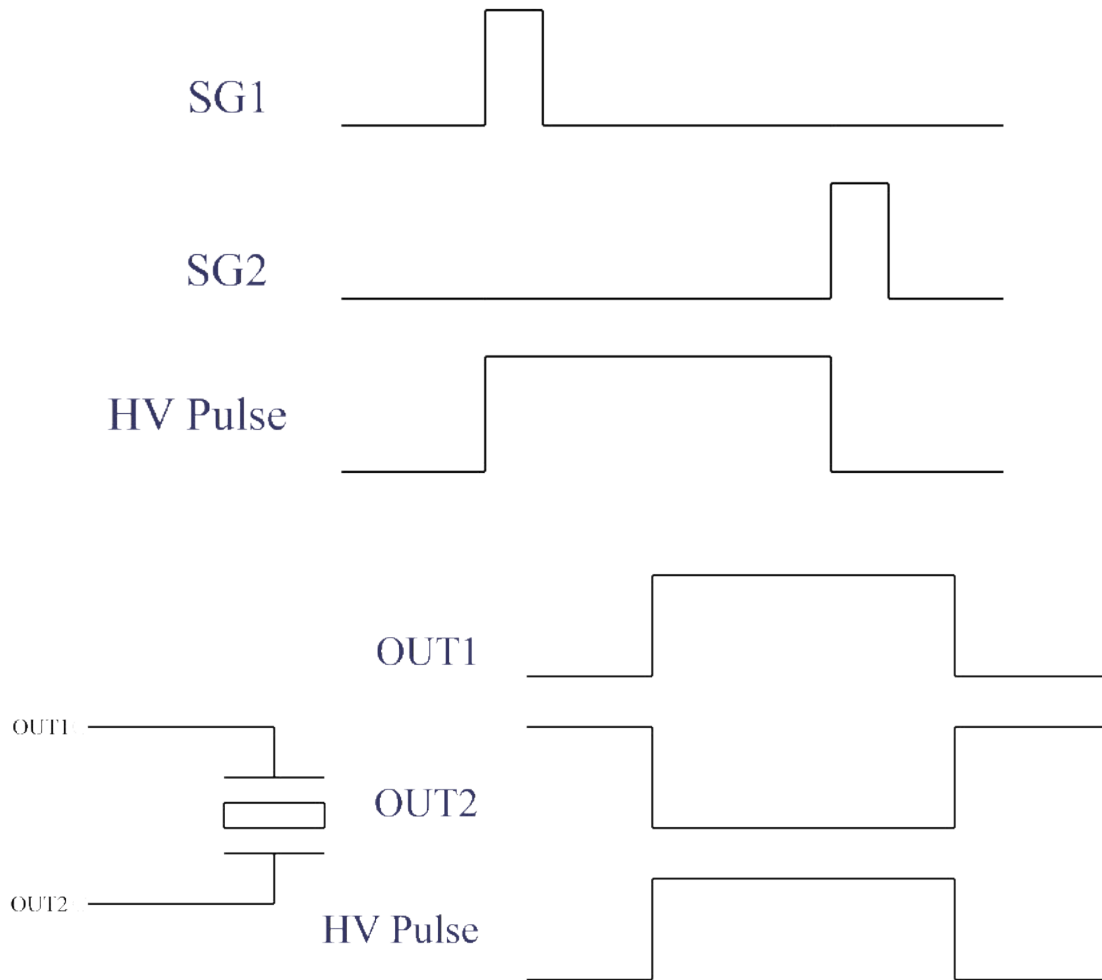
Specifications	
Series	CL-PCDH-1M series
Model	CL-PCDH-1M-2.9
High voltage maximum rated voltage	2.9 kV
High voltage maximum working voltage	2.7 kV
High voltage maximum repetition rate	1000 kHz
Pulse duration	100 – 5000 ns
High voltage pulse rise time	<7 ns
High voltage pulse fall time	<7 ns
External trigger signal amplitude	3.5–5 V (50 Ω load)
External signal input interface	SMA
Indicator light	Power indication
Cooling method	Water cooling
Volume	135*68*45 mm (L*W*H)
High voltage power	OEM-HV-120
Power supply	DC24V

## SIZE DIAGRAM (mm)



# CL-PCDH-1M Series Pressurized Step-down Crystal Driver

## SIGNAL CONTROL DIAGRAM



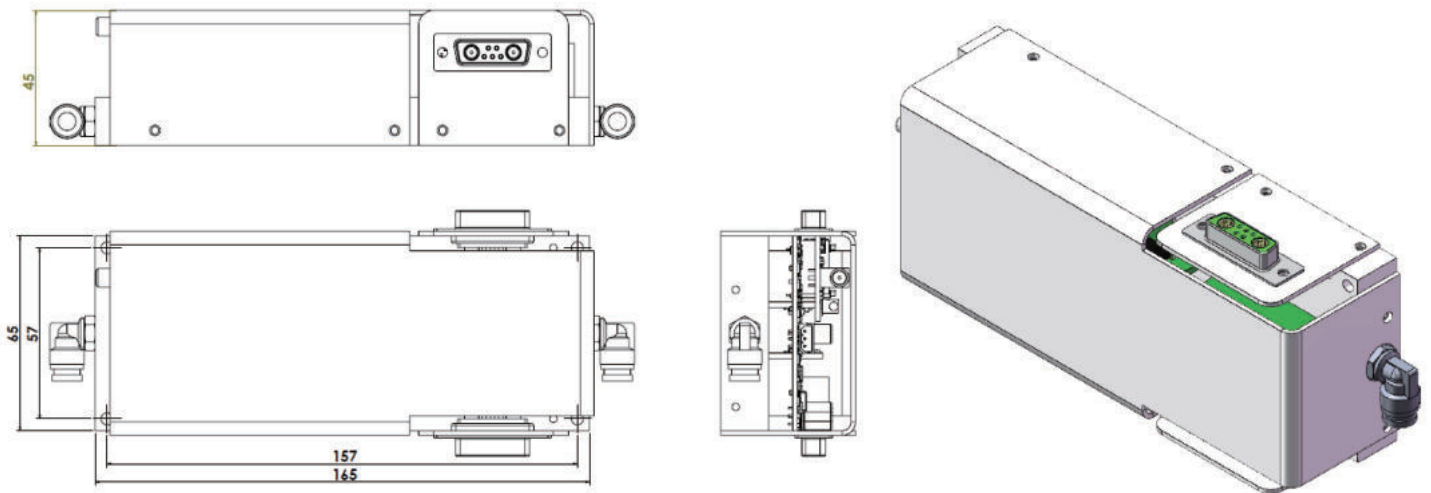


# CL-PCDX Series Pressurized Step-down Crystal Driver

## PARAMETERS

Specification	
Model	CL-PCDX-10-7.5
High voltage Maximum working voltage	7.5 kV
High voltage maximum repetition frequency	4 kHz
Pulse duration	100 – 5000 ns
High voltage pulse rise time	<12 ns
High voltage pulse drop time	<12ns
External trigger signal amplitude	3.5 – 5 V (50 Ω load)
External signal input interface	SMA
High voltage output interface	7w2
Indicator light	Power Light on/off
Type of cooling	water-cooling
Volume (L*W*H)	165*65*45 mm
High voltage power	<200W
Power supply	24V

## SIZE DIAGRAM (mm)

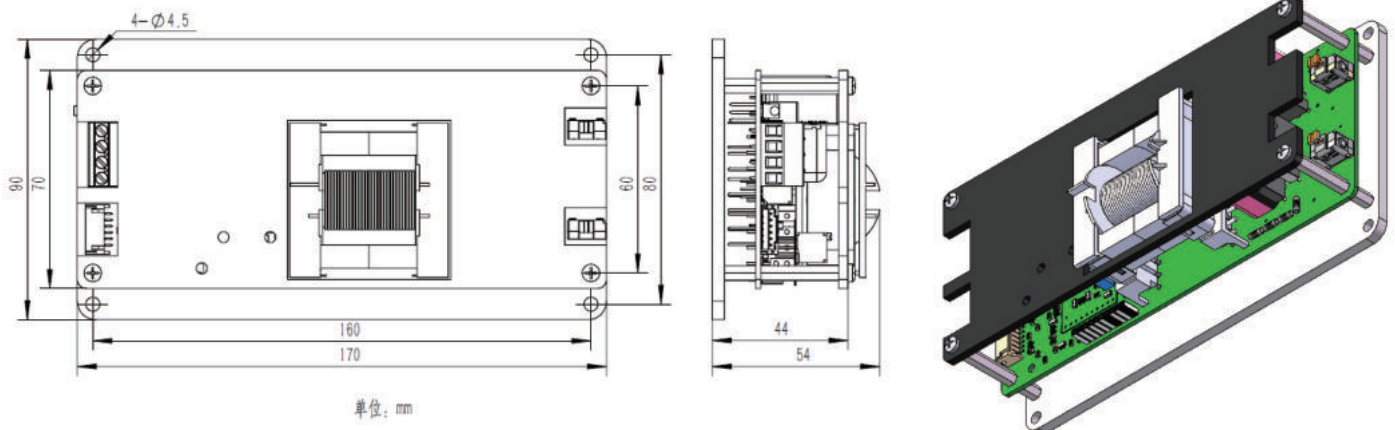


# CL-OEM-HV-80 High Voltage Power Supply

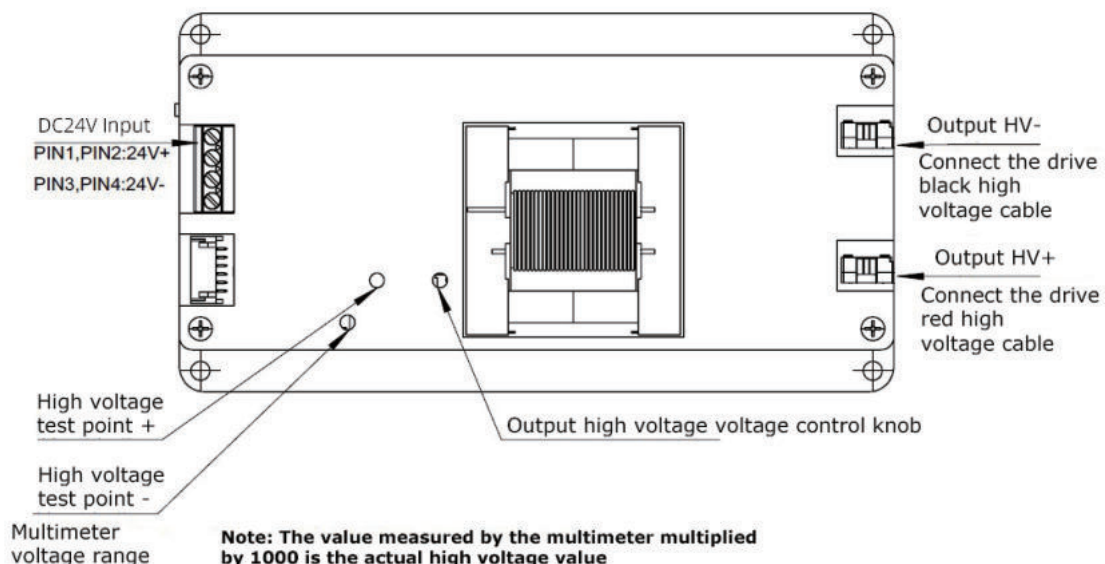
## PARAMETERS

Specification	
Model	CL-OEM-HV-80/CL-OEM-HV-80-RS
Maximum output voltage option	4.0 Kv
Output voltage range	1.5kv~4.0kv (Different drivers choose different ranges of high voltage)
Function	Power supply enable control, high voltage test voltage output, RS232 control (RS version)
Maximum output power	80 W
Power input	24 V DC, <90 W
Size (L × W × H)	170 × 70 × 40 mm
Mounting dimension	160 × 60mm or 160 × 80mm

## SIZE DIAGRAM (mm)



## ELECTRICAL CONNECTION DIAGRAM (mm)

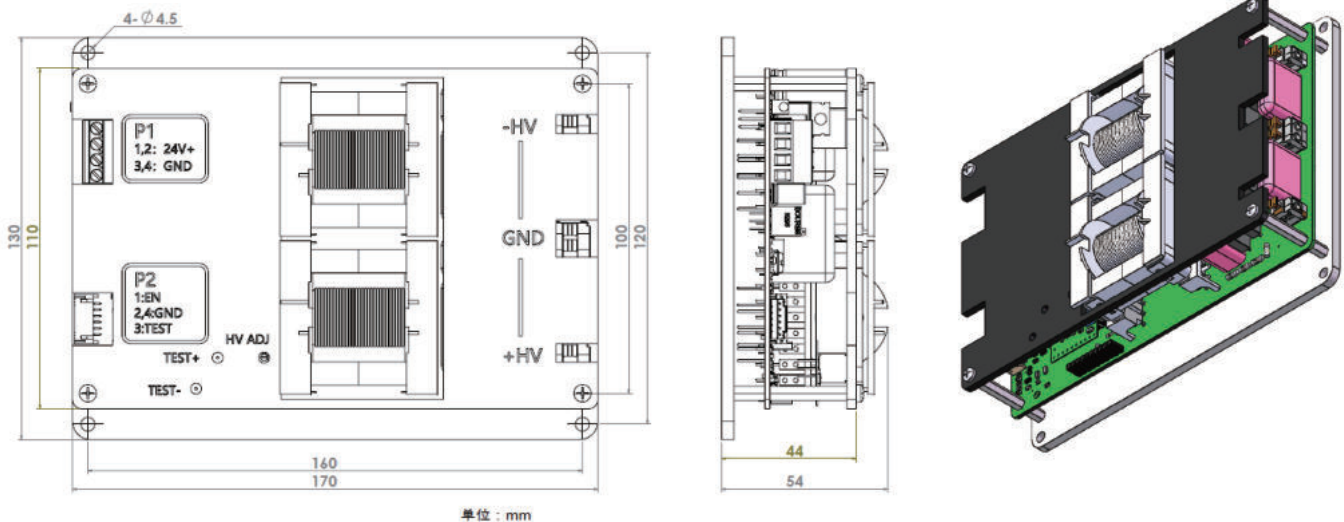


# CL-OEM-HV-120 High Voltage Power Supply

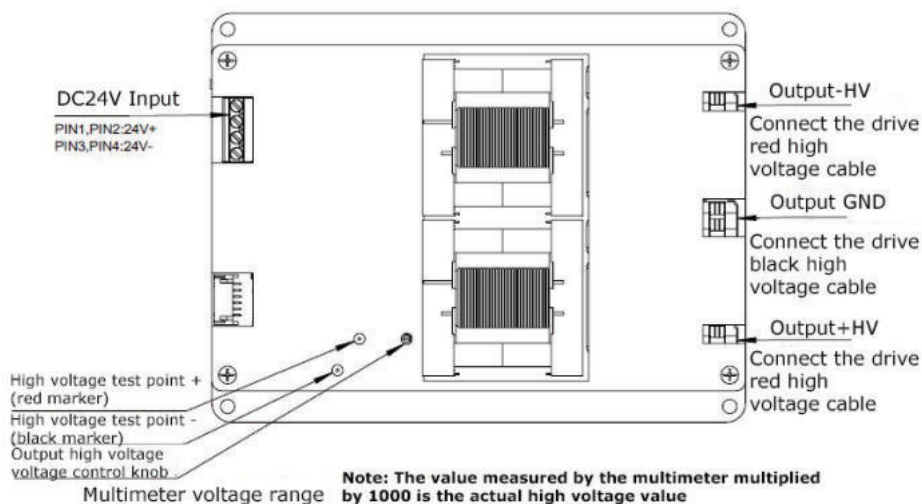
## PARAMETERS

Model	CL-OEM-HV-120/CL-OEM-HV-120-RS
Maximum output voltage option	4.0 kv
Output voltage range	1.5kv~4.0kv(Different drivers choose different ranges of high voltages) ±1.4 kv~±2.0kv(Different drivers choose different ranges of high voltages)
Function	Power supply enable control, high voltage test voltage output, power supply overtemperature protection indicator, RS232 control (RS version)
Maximum output power	120 W
Power input	24 V DC, <140 W
Size(L × W × H)	170 × 130 × 40 mm
Installation dimension	160 × 120mm or 160 × 100mm

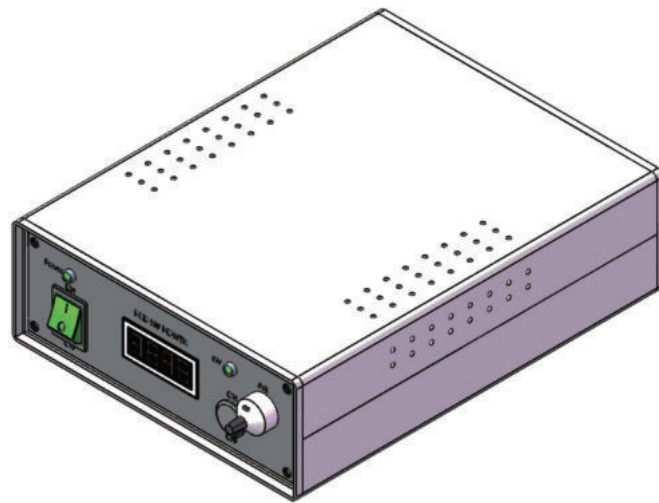
## SIZE DIAGRAM (mm)



## ELECTRICAL CONNECTION DIAGRAM (mm)



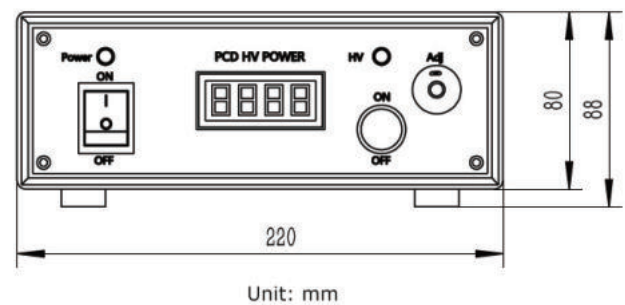
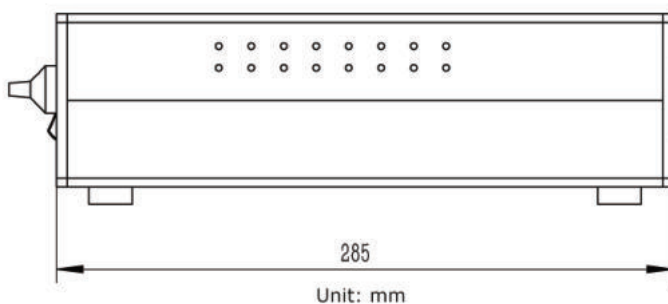
# CL-PCD-HV Series High Voltage Power Supply



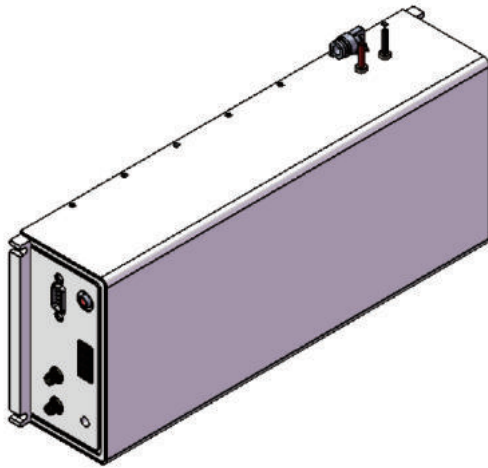
## PARAMETERS

Model	CL-PCD-HV-80	CL-PCD-HV-120
Maximum output voltage option	4.0 Kv	4.0 kv
Output voltage range	1.5kv~4.0kv(Different drivers choose different ranges of high voltages)	1.5kv~4.0kv (Different drivers choose different ranges of high voltages) ±1.4 kv~±2.0kv (Different drivers choose different ranges of high voltages)
Function	Power enable control, high-voltage display, high-voltage control knob, Pucker box drive power supply	
Maximum output power	80W	120 W
Power input	AC 200V	
Size(L × W × H)	285× 220 × 88 mm	

## SIZE DIAGRAM (mm)

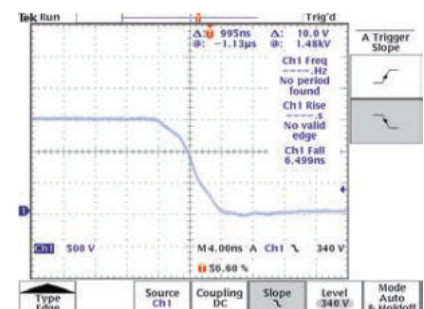
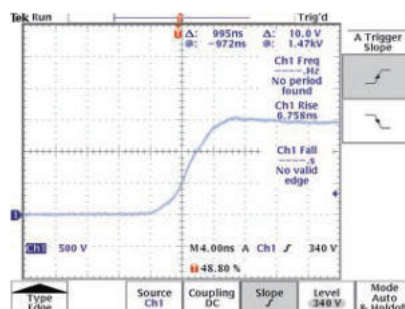
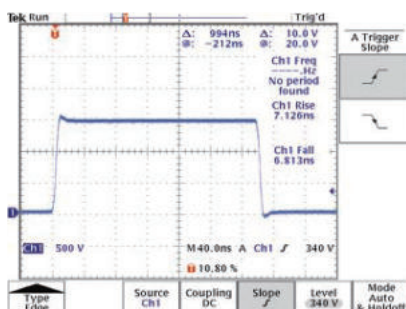


# CL-PACK-PCDH Series All-in-one Crystal Driver Module



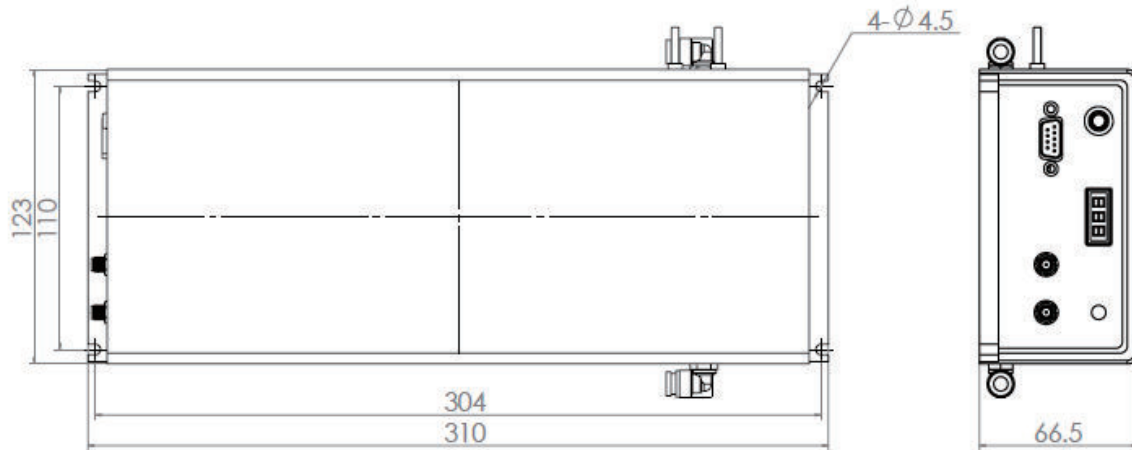
## PARAMETERS

Specification	
Series	CL-PACK-PCDH-S series
Model	CL-PACK-PCDH-S -250-3.8
High voltage Maximum rated voltage	3.8 kV
High voltage Maximum working voltage	3.6 kV
High voltage maximum repetition frequency	250 kHz
Pulse duration	15- 1250 ns
High voltage pulse rise time	<7.5 ns
High voltage pulse drop time	<7.5 ns
External trigger signal amplitude	3.5 – 5 V (50 Ω load)
External trigger signal amplitude	SMA
Type of cooling	Water-cooling
Volume	310*123*66.5 mm (L*W*H)
High voltage power	<75 W
Power supply	24V
Function	High voltage display, high voltage regulation, power indicator

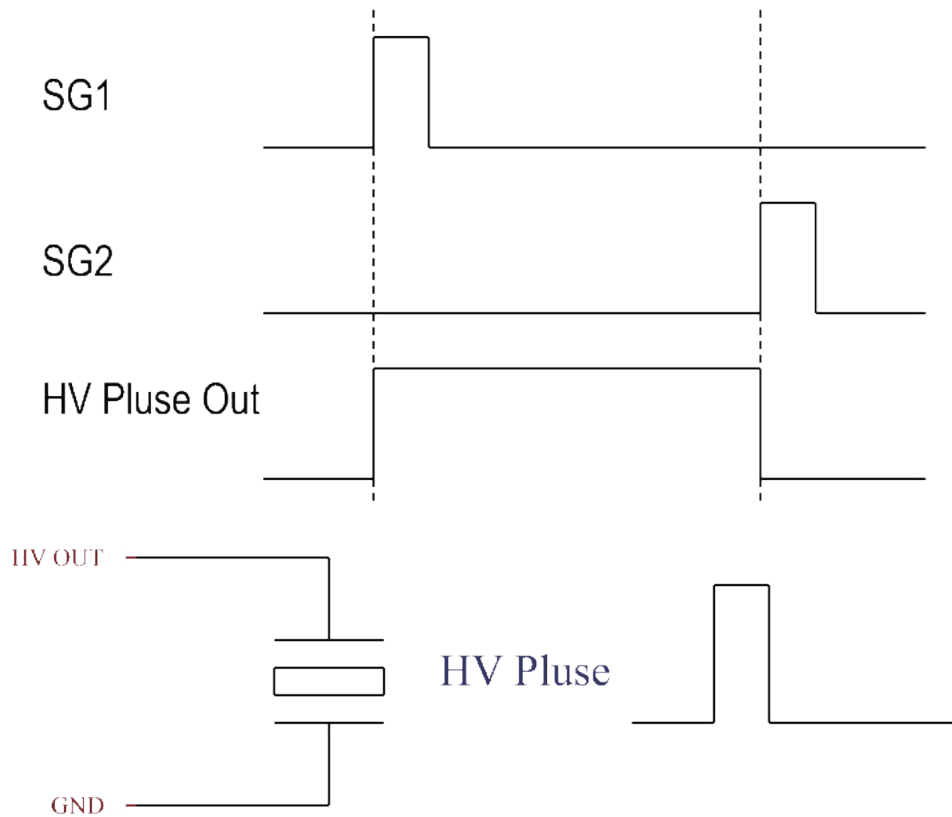


# CL-PACK-PCDH Series All-in-one Crystal Driver Module

## SIZE DIAGRAM (mm)



## SIGNAL CONTROL DIAGRAM



# CL-SC300 Series Pockels Cells Drive Signal Controller



## PARAMETERS

CL-SC300 series		
Model	CL-SC300-BNC	CL-SC300-SMA
Output interface	BNC	SMA
Output maximum frequency	1.0MHz	
Signal jitter	100ps RMS	
Positive pulse width range	2ns ~ 100ms	
Delay range	0ns ~ 20us	
Delay accuracy	250ps	
Output level	>3.5V (50Ω)	
Input signal trigger mode	Rising edge trigger	
Maximum input frequency	100MHz	
PIN input minimum level	>50mv (50Ω)	
Signal input level	>2.5V (50Ω)	
Input/ output interface	BNC	
Communication interface	USB and RS232 are supported	
Volume	96*160*41 mm (L*W*H)	
Power supply	DC:9~36V	

## SIZE DIAGRAM (mm)

