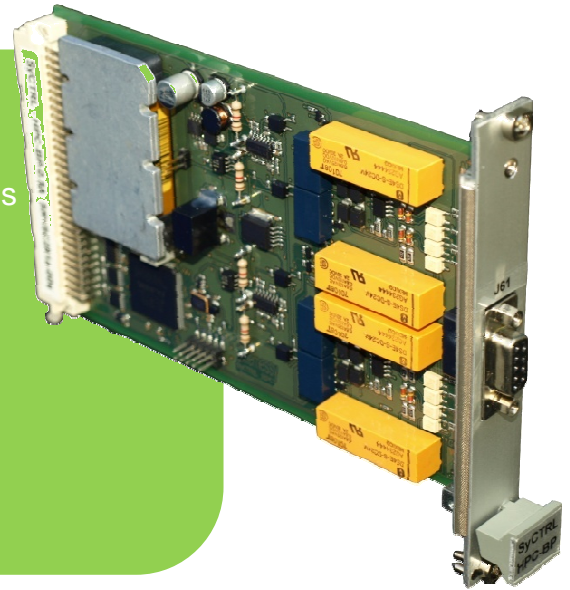


# SyCTRL High Power Command

## SyCTRL HPCBP board

- 4 bi-polar high power voltage pulse command channels
- Adjustable output voltage
- Configurable pulse width
- Up to 1A output current
- OCP protection for each channel
- Physical separation to Product Under Test



## Overview

The HPCBP board is a 4-channel bi-polar High Power voltage pulse Command module.

With its hardware configurable output voltage and over current protection, the HPCBP board prevents any damage on the unit under test.

The HPCBP board is mounted in any rear slot of a Chassis.

It is designed to be managed by a standard Decision board and can be mixed with any SyCTRL rear mounted slave board (analog IO , digital IO, LCL, RS485, HPC, ...).

## Safety management

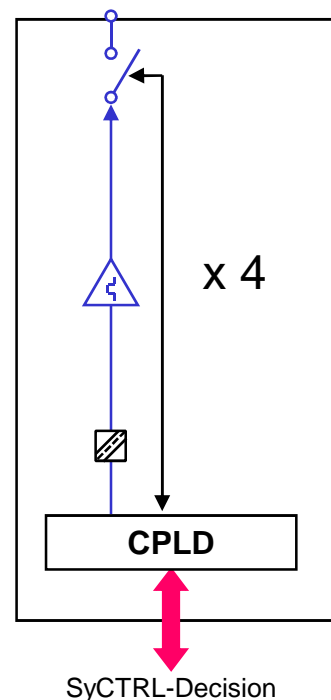
The board embeds a physical separation relay that can be used for safety purpose when interfacing pyro lines or thermal knives for example.

## Downtime optimization

The board embeds its own parameters, minimizing its downtime to the board replacement in case of failure.

## Integrated Built-In self test

The HPCBP board embeds its own built-in self test which controls the pulse width and the relays health.



# SyCTRL High Power Command

## Output characteristics

Circuit type	Power NMOS
Signal transfer	DC coupled
Zero reference	return line at ground through 1 M $\Omega$ (bleeding resistor)
Output voltage	0 to 32Vdc
Maximum current	1A per channel
Over current protection	0 to 1A
Over voltage protection	32V by TAZ diode (*) + free wheel diode
Pulse width	10ms to 1s
Pulse width programming res.	1 ms
Rise / fall time	< 500 $\mu$ s on resistive load
Leaking current	< 25 $\mu$ A

## Power characteristics

Power consumption	Active:	24W
	Idle:	5W

## Physical separation

For each line > 10 M $\Omega$  when open

## Environmental

### Operating environment

Temperature	10 to 40 $^{\circ}$ C
Humidity	40 to 90% noncondensing
Pressure	800 to 1050 mbar

### Storage environment

Temperature	-10 $^{\circ}$ C to 60 $^{\circ}$ C
Humidity	up to 90% noncondensing
Pressure	800 to 1050 mbar

## Mechanical

### Size

sc281 3HU x 4HP x 220mm (\*)

### Weight

sc281 250 g

### Connector

sc281 1x D-Sub 9 female

(\*) 1 HU = 44.45 mm, 1 HP = 5.08 mm, TAZ : Tranzorb

