



# Single switch Gate Driver (SCS-GDSS-8004)

SCS Power

[www.scspower.in](http://www.scspower.in)

## Description:

Our SCS-GDSS-8004 is a compact yet powerful single switch gate driver for SiC MOSFET power switches; it has several protection features with on board isolated supply that ensure reliability and efficient switching performance.

## Specifications:

High power SiC MOSFET gate driver  
+15/-2.5 volts drive  
3.3 and 5 volts pulse support  
Up to 80 kHz switching frequency  
Short circuit protection  
Fault output  
Buffered input for low noise  
Under voltage protection  
Power and fault indication LED  
Up to 1000 volts DC link  
3000Vrms isolation

## Application:

This gate driver is suitable for any application for switching frequency up to 80kHz. Some of targeted applications are:

***DC-DC converters***

***SMPS***

***UPS***

***PFC converters***

***Automation & testing***

## Input Connections:

Symbol	Description
<b>G</b>	Ground.
<b>NC</b>	No Connection.
<b>F</b>	Active low fault output for switch. In condition of fault pin voltage would be zero. <b>Please connect the semiconductor switch as shown below otherwise gate driver will consider it as open circuit and fault indication will be ON.</b>
<b>P</b>	Input pulse from microcontroller or DSP for switch
<b>Vs</b>	Power supply, +15Vdc nominal.

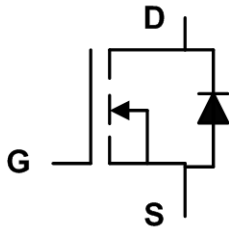
## Output Connections:

Symbol	Description
<b>A/D</b>	Switch drain.
<b>B/G</b>	Switch gate.



C/S	Switch source.
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**Connection diagram:**



**Max. operating switching frequency calculations:**

$F_{smax} = 0.035/Q_g$  (where,  $Q_g$  is switch gate charge value. If this value is greater than 80kHz then considered 80kHz only as max switching frequency)

**Indications:**

Green LED: Power ON

Red LED: Fault Condition