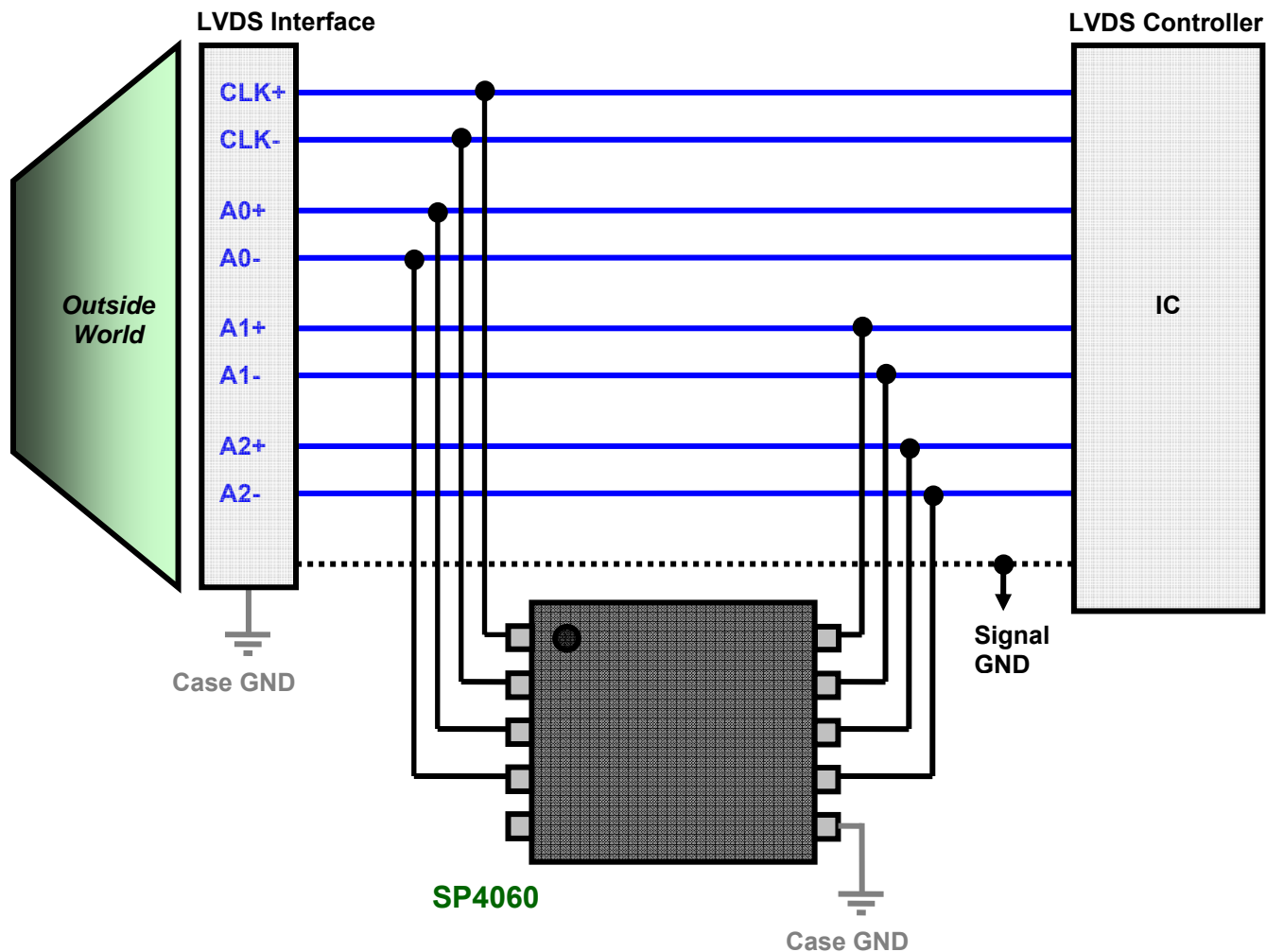


## Application Guide LVDS (Low Voltage Differential Signaling)

### Considerations:

- LVDS is a low noise, low-voltage signal scheme that uses a small current (typically 3.5mA) to generate a voltage drop across a 100Ω resistor to convey information or data
  - Data rates can vary per application but the ANSI/TIA/EIA-644-A standard recommends a maximum of 655Mbps.
- The medium/high speed bus requires a low capacitance device in 1-6pF range (typically)
  - LVDS schemes will vary in terms of the total number of channels used
  - Protection of 8 data lines is shown below (i.e. CLK+/CLK- and Ax+/Ax-)

### Application Schematic:



### Recommended SPA Devices:

Ordering Number	ESD Level (Contact)	Lightning ( $t_p=8/20\mu s$ )	I/O Capacitance	# of Channels	$V_{RWM}$	Packaging
<a href="#">SP4060-08ATG</a>	±30kV	20A	4.4pF	8	2.5V	MSOP-10
<a href="#">SP3050-04HTG</a>	±20kV	10A	2.4pF	4	6V	SOT23-6