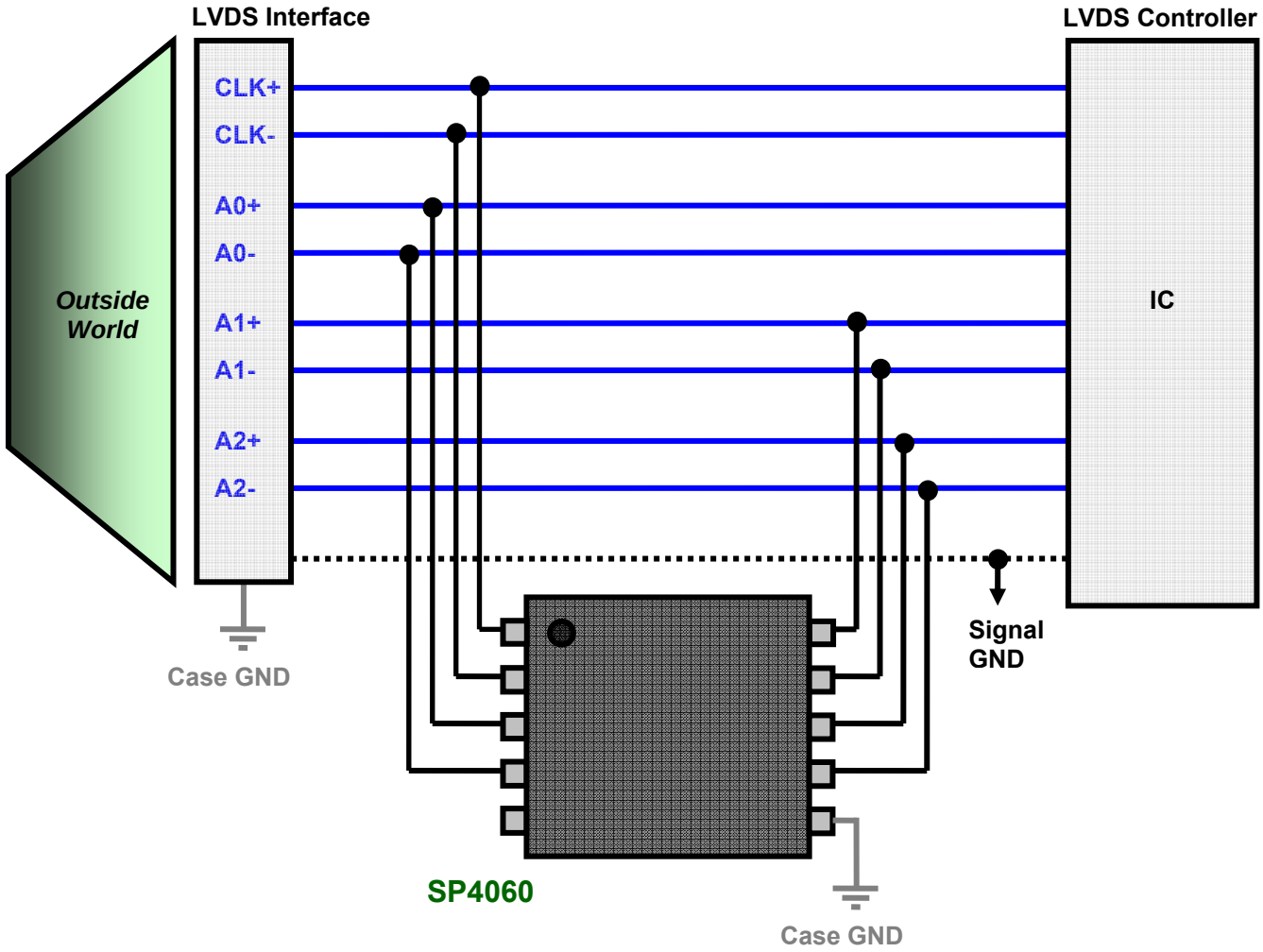
Application Guide
LVDS (Low Voltage Differential Signaling)

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=8/20µs)	I/O Capacitance	# of Channels	V_{RWM}	Packaging
SP4060-08ATG	±30kV	20A	4.4pF	8	2.5V	MSOP-10
SP3050-04HTG	±20kV	10A	2.4pF	4	6V	SOT23-6