

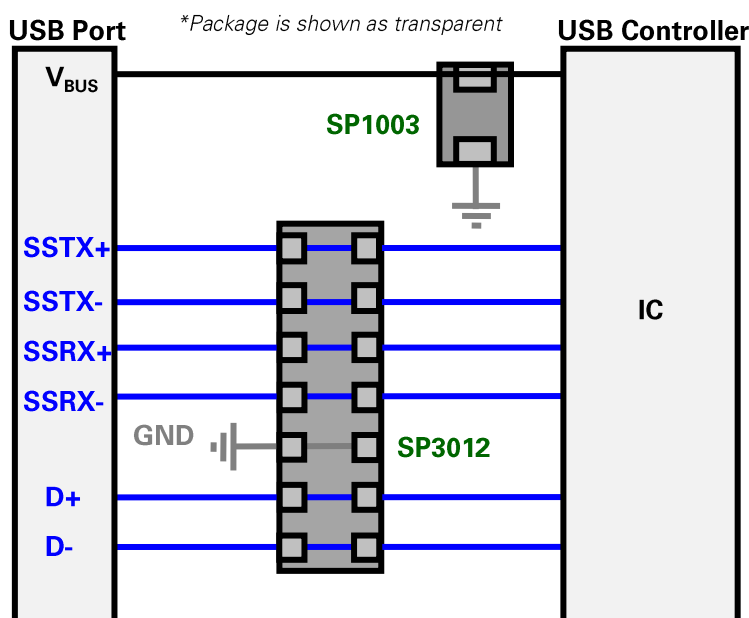
APPLICATION SPECIFIC DEVICE SELECTION

USB3.0 (Integrated Solution)

Considerations:

- Each port depending upon what it's connected to can operate:
 - Up to 5Gbps over the new super-speed data pairs, SSTX± and SSRX±
 - Up to 480Mbps on the legacy data pair, D±
- Requires 4 channels of ultra-low capacitance protection for the super-speed data pair (i.e. SSTX± and SSRX±) and 2 channels of protection for the legacy D± data pair. The SP3012 shown below integrates all 6 channels of protection into a small form factor μDFN-14 package.
- Protection for V_{BUS} is optional and can be done via a single channel device like the SP1003

Application Schematic:



Recommended TVS Diode Arrays:

Ordering Number	ESD Level (Contact)	I/O Capacitance @ V _R =0V	# of Channels	V _{RWM}	Packaging
SP3012-06UTG	±12kV	0.5pF	6	5V	μDFN-14 (3.5x1.35mm)
SP1003-01ETG	±30kV	17pF	1	5V	SOD882 (0402)