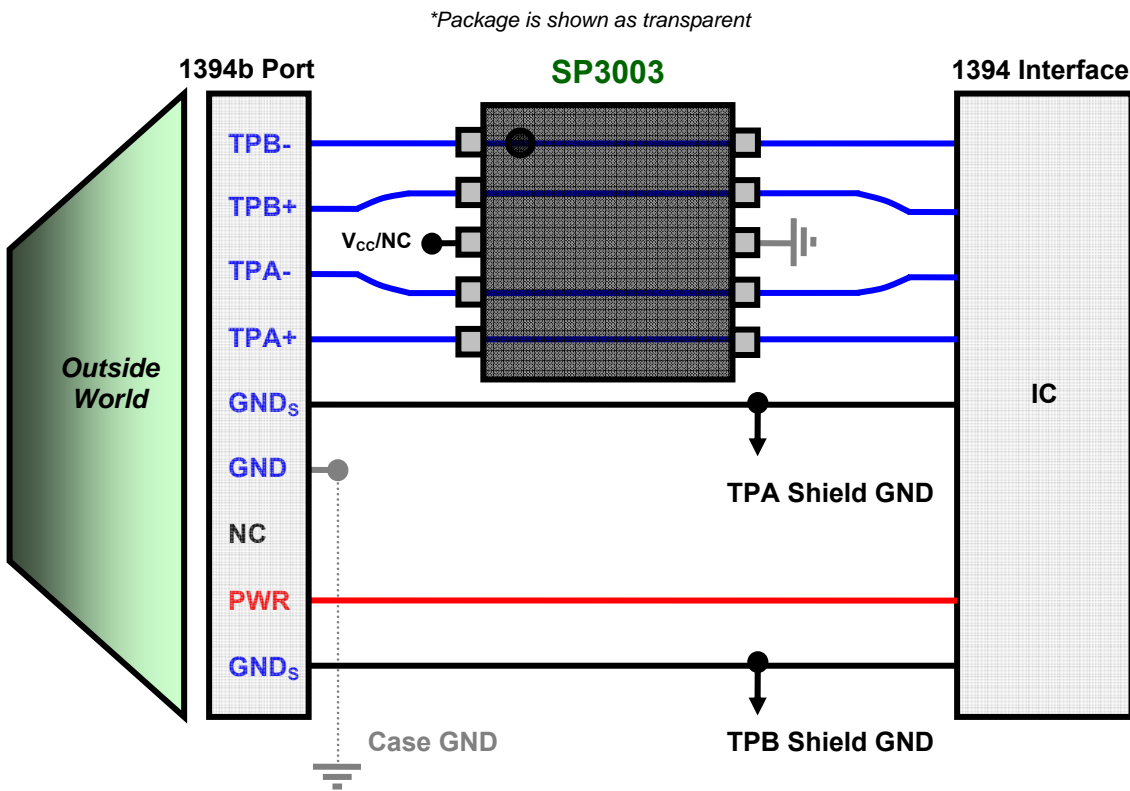


Application Guide 1394a/b

Considerations:

- 1394a (FireWire 400 or S400) was the original (1st generation) implementation
 - Allowed for two connectors, powered (6 pin) and unpowered (4 pin)
 - Data rates up to 400Mbps using 2 differential pair
- 1394b (FireWire 800 or S800) was the 2nd generation
 - Required a new 9 pin connector but was backwards compatible to S400
 - Data rates up to 800Mbps using 2 differential pair
- 1394b also had provisions for 1600Mbps and 3200Mbps (or S1600 and S3200)
 - Uses same 9 pin connector as S800
- S800, S1600, and S3200 require very low capacitance devices for the high speed data rates
 - Protection of 4 data lines is needed (i.e. **TPB+/TPB-** and **TPA+/TPA-**)

Application Schematic:



Recommended SPA Devices:

Ordering Number	ESD Level (Contact)	I/O Capacitance	# of Channels	V _{RWM}	Packaging
SP3003-04ATG	±8kV	0.65pF	4	6V	MSOP-10
SP3010-04UTG	±8kV	0.45pF	4	6V	μDFN-10 (2.5x1.0mm)