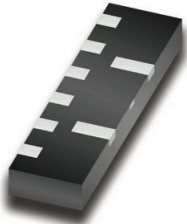


INTERFACE APP NOTE
HDMI 1.4 Protection

DFN-8 PACKAGE

SOD-323 PACKAGE
OBJECTIVE

HDMI 1.4 is a hot-pluggable interface combining video, audio and Ethernet signals. Voltages are 5V or lower and the bandwidth is 340MHz. This solution provides HDMI 1.4 port protection against the damaging effects of ESD and short circuits without impairing the data rate or the transmission of power.

BENEFIT

The integrated TVS Diode solution is designed to protect the interface against surge events by using two devices (PLR0506) to protect 12 lines of datalines and clock pulses. A separate device (PSD05HP) can be used to protect the V_{CC} Bus.

COMPLIANCE

- IEC 61000-4-2 ±8kV Contact, ±15kV Air Discharge
- IEC 61000-4-4 EFT 40A, 5/50ns
- IEC 61000-4-5 Surge Secondary Lightning, 4A @ 8/20μs

SOLUTION

- 2 x PLR0506 in DFN-8 Package
- Stand-Off Voltage V_{WM} : 5 Volts
- Breakdown Voltage $B_{V_{MIN}}$: 6.0 Volts
- $V_C @ I_p$: 18V @ 4A
- Leakage Current I_R : 3μA
- Typ. Capacitance: 0.8pF
- 1 x PSD05HP (SOD-323) for V_{CC} Bus @ 1kW Level

ALTERNATE RECOMMENDATIONS

- 3 x PLR0524

