

HDMI® Port

HDMI 2.0 - ESD & Overcurrent Protection

Solution Products



CDDFN10-3324P



CDSOT236-0504C



MF-FSMF020X-2

Design Kit



PN-DESIGNKIT-48

Objective

HDMI 2.0 offers an enhanced throughput of 18 Gbps for video, audio and Ethernet in applications such as Ultra High Definition Television (UHDTV), set-top boxes, DVD players, PCs, gaming stations, etc. Robust ESD protection that does not affect the impedance of the differential transmission lines is required. Overcurrent and surge protection of the 5 V supply from spikes caused by hot plugging of the connector is also required.

Solution

- 2 TVS Diode Arrays: CDDFN10-3324P
- 1 TVS Diode Array: CDSOT236-0504C
- 1 Multifuse® PTC Resettable Fuse: MF-FSMF020X-2

Compliance

IEC 61000-4-2 Level 4 (8 kV / 15 kV)

Alternate Recommendations

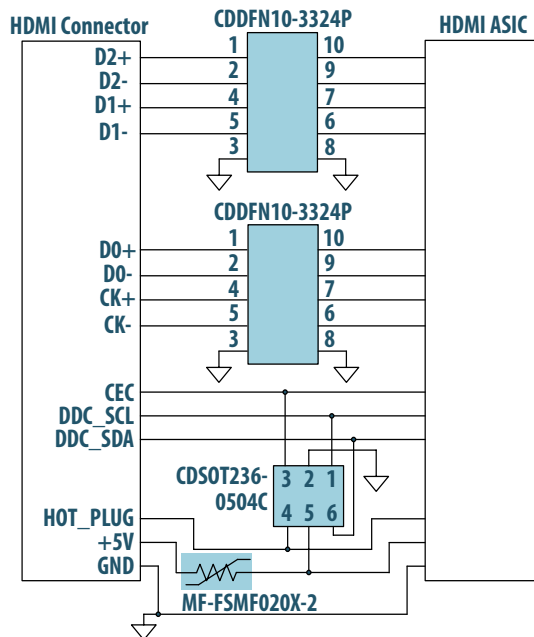
Two TVS Diode Arrays: CDDFN10-0506N with one Multifuse® PTC Resettable Fuse: MF-FSMF020X-2.

Other PortNote® Solutions:

- HDMI: HDMI 1.4 - ESD & Overcurrent Protection

Benefit

This solution provides IEC 61000 Level 4 ESD protection without impairing the HDMI signal.



The schematic shown here illustrates the application protection and does not constitute the complete circuit design. Customers should verify actual device performance in their specific applications.