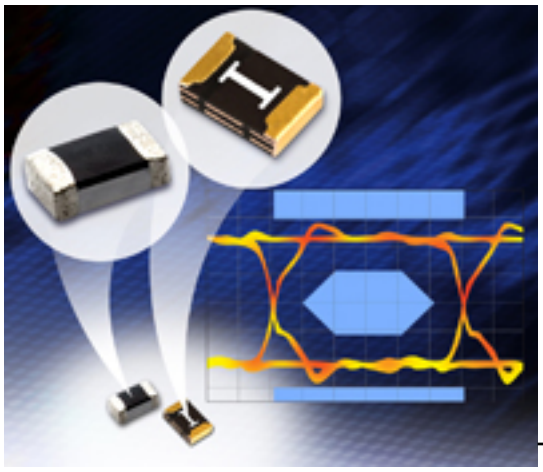
ESD and Overcurrent Reference Layout for HDMI 1.3 Based On Passives



Tyco Electronics introduced a reference layout for ESD and overcurrent protection for HDM 1.3 interfaces. The reference layout uses the company's 0.25 pF signal to ground-capacitance PESD protection devices, and space-effective component placement and routing to help protect against ESD events. The reference layout also includes optional overcurrent protection on the +5V rail, using the PolySwitch nanoSMD device. The newest HDMI 1.3 standard doubles the previous HDMI data rate to 3.4 Gbps per differential signal pair. This ESD and overcurrent protection reference layout for HDMI 1.3 was developed in conjunction with Efficere, Inc., and is said to meet or exceed the HDMI 1.3 specifications for operation at 3.4 Gbps for Impedance (TDR), Data Eye, and Far End Crosstalk. The bi-directional PESD0603 or PESD0402 devices are configured in a very small space behind the HDMI connector and are said to help designers meet the IEC 61000-4-2 standard for ESD protection (±15kV for air, ±8kV for contact). The PESD devices are offered in EIA standard 0603 and 0402 sizes and can be used in various end applications, including DisplayPort, WiMAX and cellular base stations, eSATA, and other high-speed data and analog interfaces.

Tyco Electronics
800-227-7040, www.circuitprotection.com/hdmi [1]

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