Objective
Serial Digital Interface (SDI) refers to a family of video interfaces standardized by SMPTE. High-Definition Serial Digital Interface (HD-SDI) is standardized in SMPTE 292M; this provides a nominal data rate of 1.485 Gbit/s. This solution provides lightning surge protection for these high-speed ports which is often needed in outdoor and high-exposure environments.

Solution
1 TBU® High-Speed Protector:
   TBU-CA065-100-WH
1 GDT: 2031-23T-SM-RPLF
1 TVS Diode: CDSOD323-T05LC

Compliance
4 kV IEC 61000-4-5 Lightning Surge
6 kV 10/700 μs Lightning Surge

Benefit
This solution provides lightning protection without impairing the HD-SDI signal up to 1.485 GHz.

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