

Silicon photonics must be protected against ESD during assembly. This is the first work presenting ESD solutions for this technology-- Having an NPN bipolar transistor in parallel with the silicon modulator (MOD) or the Ge photodetector (PD) can guard the devices against the EDS threat.

Fig. A. Either silicon modulators or Ge photodetectors can be damaged by ESD during assembly.

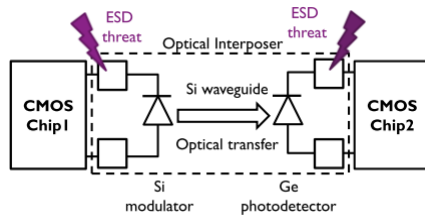


Fig. B. Embedding a NPN bipolar transistor protects the Ge PD or Si MOD against ESD threat during assembly.

