

Non-Magnetic RF Interconnects

Features & Benefits

- Magnetic field strength of less than 0.1 mG
- Small form factor, high density SMPM blindmate connectors
- Cable assemblies available as COTS items

Applications

- Dilution refrigeration chamber
- Quantum lab testing equipment
- MRI

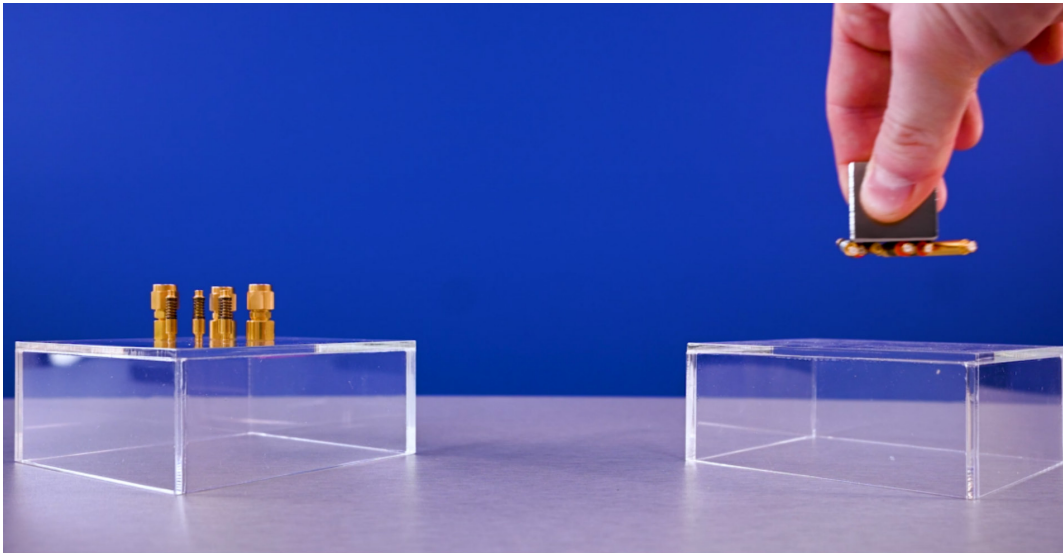


Figure 1: Comparison of non-magnetic to standard bullets in the presence of a magnet.

Why do we need Non-Magnetic RF interconnects?

Qubits, the core building blocks of quantum computing, are highly sensitive to external magnetic fields. Even trace amounts of magnetic material can introduce interference that leads to qubit decoherence, reduced stability, and degraded signal integrity. This magnetic disruption adds noise, compromising the reliability of quantum operations. SV's non-magnetic product line is manufactured using non-magnetic materials, finishes, and processes to ensure magnetic field strengths below 0.1 milligauss. Figure 1, above, demonstrates this concept, as a non-magnetic bullet is unaffected by the powerful magnet nearby.

Additional Resources



Non-Magnetic Connectors in Action

This short video visually demonstrates the difference in magnetic performance between RF connectors. Scan the QR Code to watch now.

