DELIVERING DESIGN SOLUTIONS

Molex has employed its RF/microwave expertise to develop a multi-port family of products designed to overcome a variety of challenges and help OEMs meet even the most stringent market demands. Below are just some of the advantages Molex Multi-Port RF Connectors offer:

1. Increased port density

   Multi-Port RF Connectors offer up to 32 ports on a single interface block, easing space constraints and freeing up PCB real estate.

2. Decreased labor time and cost

   Molex Multi-Port RF Connectors are designed to protect against damage when mating multiple connections at once. These features, which include guide pins, blind-mate contacts, strain relief and rugged outer housings, mitigate radial and axial misalignment common in modular applications.

3. Damage prevention

   Because they are easier to install, multi-port blocks experience less damage than individual connectors, and they often have features that protect against damage. For example, Molex’s MPRF Coaxial Cable-to-Board Connectors have a robust outer nylon shell that can withstand 500 mating cycles and securely support cable weight.

4. Alternate materials and processes

   Molex produces its Multi-Port RF Blocks with a broader range of materials and manufacturing methods than it can for individual connectors. For example, blocks can be produced with metal injection molding (MIM) in high volumes, decreasing both production costs and time. And for weight-restricted applications, such as portable devices, Molex has the ability to use lower-weight base materials such as aluminum.
Molex offers a multi-port connector portfolio that meets a variety of application needs:

VITA 67 Backplane Solutions provide 4- and 8-port configurations and 65-GHz SMPM interfaces for superior RF connectivity within versatile performance switching (VPX) platforms. Molex also offers aluminum versions and Temp-Flex PFA Solid Core Cable Assemblies.

The DIN 1.0/2.3 Connector and Backplane System offers up to 10 ports for superior orthogonal PCB mating in video and broadcast applications. The 50-Ohm version operates up to 10 GHz and the 75-Ohm version up to 2 GHz.

Multi-Port RF (MPRF) Coaxial Cable-to-Board Solutions deliver 4, 6 and 8 ports in a frequency range up to 6 GHz and with 50- or 75-Ohm options. This connector system also offers housing features that provide rugged and compact connectivity in high-vibration environments.

Ganged SSMCX Wire-to-Board Connectors operate up to 6 GHz with 6 and 8 ports.

Mixed Layout D-Sub Connectors offer power, signal and RF transmission up to 6 GHz within one connector and in a wide range of configurations. Both 50- and 75-Ohm versions are available.

Custom Multi-Port Options provide solutions to the unique challenges of any application, offering wire-to-board and board-to-board configurations and numerous interfaces and cable types.

THE MOLEX ADVANTAGE

Our broad portfolio of RF/Microwave Multi-Port Connectors and our custom capabilities enable customers to find the solutions that meet their specific needs. Whether they’re struggling with space constraints, performance demands, robustness requirements, concerns with cost, or a combination of these issues, Molex works closely with customers to assess their applications’ needs and develop the optimal solution.