



# EMI SHIELDING SOLUTIONS FOR MEDICAL TESTING & DIAGNOSTICS EQUIPMENT

## OVERVIEW

EMI Shielding in electronic devices and equipment is the use of manufacturing techniques and materials to protect signals from being disrupted by external electromagnetic signals as well as preventing generated signals from interfering with surrounding components.

Managing the ability of medical test & measurement equipment to function satisfactorily in its electromagnetic environment without introducing intolerable electromagnetic disturbances to other equipment in that environment is crucial. Shielding of the enclosure is just as important and solves the problem of radiated emissions and susceptibility. There are many types of EMI Shielding capable to protect all the critical components and increase performance, reliability and value to medical professionals. With the current trends and demands on the medical industry, TE Connectivity's EMI shielding technology with costs and quality of life at the heart of our manufacturing.

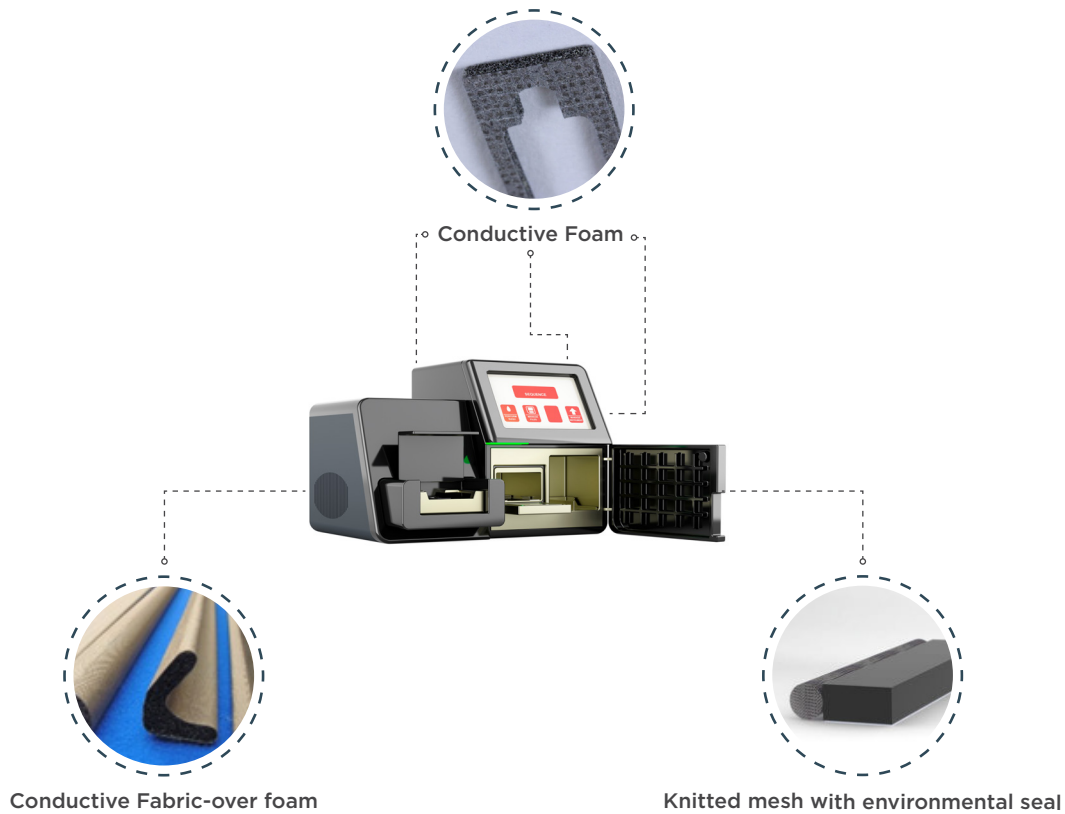
## TE CONNECTIVITY ADVANTAGES

- Customization Capability
- Engineering Expertise
- Industry Experience
- Manufacturing Scale
- Portfolio Breadth

## SEQUENCING ANALYSIS

DNA and RNA sequencing enables the analysis of RNA transcripts present in a sample from an organism of interest. The method provides a dynamic view of the cellular activity at the point of sampling, allowing characterisation of gene expression and identification of isoforms.

- Medical equipment and systems must meet the required EMC standards to ensure that the equipment will not introduce intolerable electromagnetic interference into its environment and to ensure that it will not be susceptible to electromagnetic interference in that environment
- Due to the high sensitivity of the equipment and the high data rates, EMI shielding is necessary to ensure the performance and accuracy of the equipment.

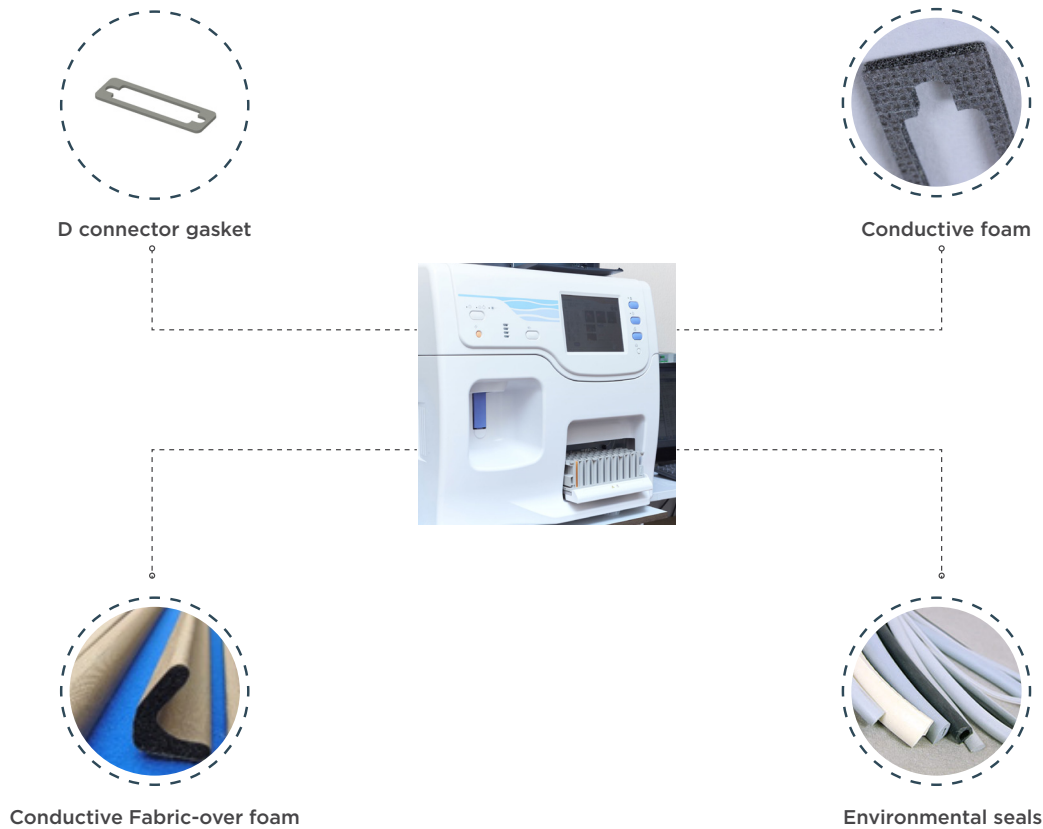


Application	Shielding Type	Features	Benefits
Module covers	<b>Conductive foam</b>	<ul style="list-style-type: none"> <li>• Very soft and conformable</li> <li>• Provided in cut parts</li> <li>• Provided with conductive adhesive backing</li> </ul>	<ul style="list-style-type: none"> <li>• Low closure force</li> <li>• Adhesive backing aids assembly</li> <li>• Provides shielding on cover</li> </ul>
Enclosure body seams	<b>Knitted mesh with environmental seal</b>	<ul style="list-style-type: none"> <li>• Soft and conformable</li> <li>• Provides environmental and EMI seal</li> <li>• Adhesive backing on environmental part</li> </ul>	<ul style="list-style-type: none"> <li>• Low closure force</li> <li>• Combined EMI and environmental seal</li> <li>• Adhesive backing aids assembly</li> </ul>
Enclosure	<b>Conductive fabric-over-foam</b>	<ul style="list-style-type: none"> <li>• Soft and conformable</li> <li>• Adhesive backing</li> <li>• Wide range of profiles</li> <li>• Can be fabricated into a gasket</li> </ul>	<ul style="list-style-type: none"> <li>• Low closure force</li> <li>• Adhesive backing aids assembly</li> </ul>

## MASS SPECTROMETRY

Mass spectrometry instrumentation enables you to separate compounds by mass, charge, shape, and size. These world-class instruments allow for structural elucidation of proteins and peptides – with confidence and reproducibility.

- Lab equipment and systems must meet the required EMC standards to ensure that the equipment will not introduce intolerable electromagnetic interference into its environment and to ensure that it will not be susceptible to electromagnetic interference in that environment
- Due to the high sensitivity of the equipment, EMI shielding is necessary to ensure the performance and accuracy of the equipment.



Application	Shielding Type	Features	Benefits
Connector	Oriented wire in silicone	<ul style="list-style-type: none"> <li>• High EMI shielding performance</li> <li>• Reliable low surface contact resistance</li> </ul>	<ul style="list-style-type: none"> <li>• provides shielding on the connector interface</li> <li>• Supplied as cut gasket</li> </ul>
Enclosure and access panels	Conductive fabric over foam	<ul style="list-style-type: none"> <li>• Soft and conformable</li> <li>• Adhesive backing to aid assembly</li> <li>• Supplied in standard lengths and cut to length during assembly</li> </ul>	<ul style="list-style-type: none"> <li>• Low closure force</li> <li>• Takes up wide tolerances</li> <li>• Supplied as standard strip, easily cut to various lengths during assembly</li> </ul>
Internal shielding	Conductive foam	<ul style="list-style-type: none"> <li>• Soft and conformable</li> <li>• Provided as a cut flat gasket</li> <li>• Conductive adhesive backing to aid assembly</li> </ul>	<ul style="list-style-type: none"> <li>• Low closure force</li> <li>• Provided as cut part to fit directly into assembly</li> <li>• Provides internal shielding within unit</li> </ul>
Environmental sealing	Silicone sponge	<ul style="list-style-type: none"> <li>• Soft and conformable</li> <li>• Bespoke flat gaskets to provide sealing in key areas</li> <li>• Adhesive backing to aid assembly</li> </ul>	<ul style="list-style-type: none"> <li>• Low closure force</li> <li>• Supplied as pre-cut bespoke seals to fit directly into the assembly</li> </ul>

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