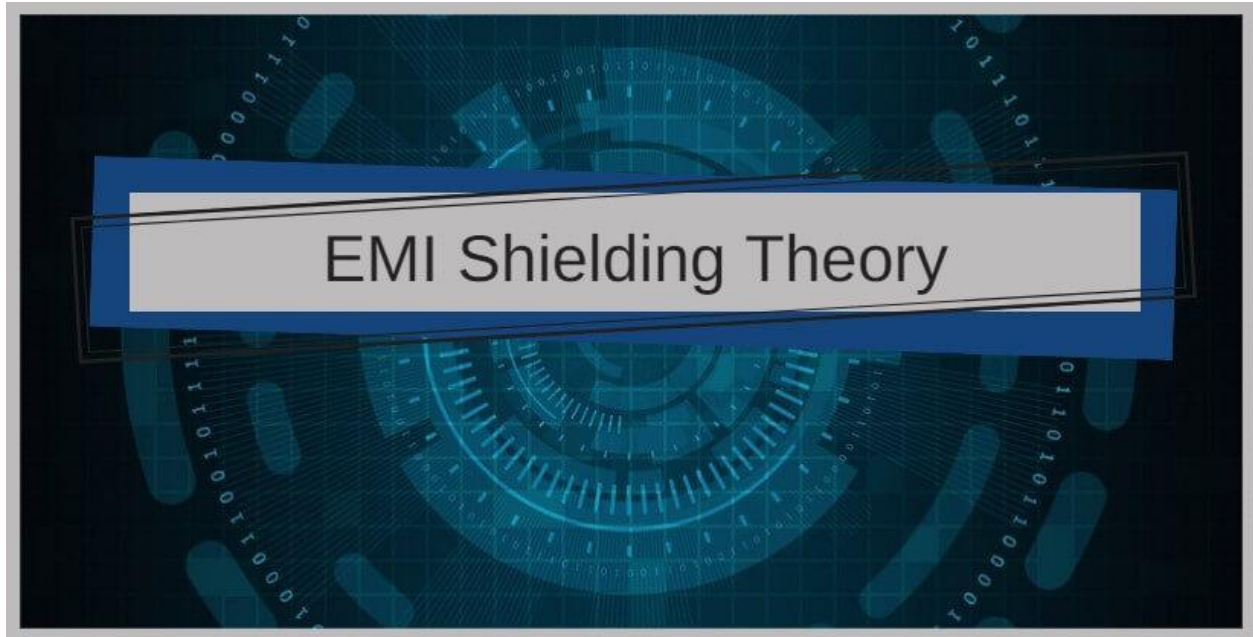


# EMI Shielding Theory - How to Choose the Right EMI Shielding Products



With the dramatic increase in the use of electronic products and the rise of cellphone and wireless technology over the past few decades, there has been a massive spike in electromagnetic interference (EMI). Many modern high-frequency electronic products feature intricate and complex designs that emit EMI radiation and are also disrupted by it. This EMI phenomenon has created a series of challenges for electrical design engineers and product development specialists tasked with utilizing EMI shielding theory to achieve electromagnetic compatibility (EMC). The goal is to use the right shielding theory method to maintain optimal EMI levels to avoid disruptions or limited operating capabilities while meeting increasingly stringent EMC regulations.

## Choosing the Right Shielding Theory

Electronic products ranging from computers and tablets to smartphones and a broad range of wireless devices emit small amounts of EMI. As the radiation is transmitted between electronics, the signal is disrupted, resulting in varying levels of diminished performance and malfunctions. It's crucial for electronic engineers to create a design that gives off the lowest possible radiation readings while shielding it from EMI waves.

Controlling EMI generated by RF front end and internal digital circuits is accomplished by:

- Utilizing ground planes that serve as a reflecting surface for disruptive EMI radiation

- Mapping the most efficient wiring layout to minimize emissions while optimizing performance
- Installing shielding gaskets that create a seal that eliminates EMI from seeping in or leaking out

## EMI Shielding Theory Best Practices

To remain competitive in the electronics industry, it's crucial to find the most efficient and cost-effective ways to control EMI, so products function correctly. Consider the following primary elements of a successful EMI shielding theory:

- Establish your plans for shielding the circuit board at the start of the product design process
- Use shielding gaskets in conjunction with a variety of other techniques to suppress emissions
- Create a circuit board that's grounded, filtered and has the smallest possible loop area

## EMI Gaskets and Shielding Theory Solutions

JEMIC Shielding Technology is a leading manufacturer and distributor of shielding products capable of solving your EMI challenges. From EMI profile-shielding gaskets for applications ranging from small commercial laptop computers to large industrial enclosures to low closure force, fabric-over-foam I/O backplane gaskets available configured to your specifications, we will help you find precisely what you require.

Located in the Harrisburg, Pennsylvania, area, JEMIC takes a personalized approach to meeting the diverse needs of our customers. In addition to EMI profile gaskets and I/O backplane gaskets, we also offer EMI profile gaskets, cable shielding, shielding laminates and shielding tapes at a competitive price. Put your trust in over 30 combined years of EMI shielding technology engineering and manufacturing experience. [Contact us today](#) to speak with a knowledgeable representative about your projects.