

# HFWorks

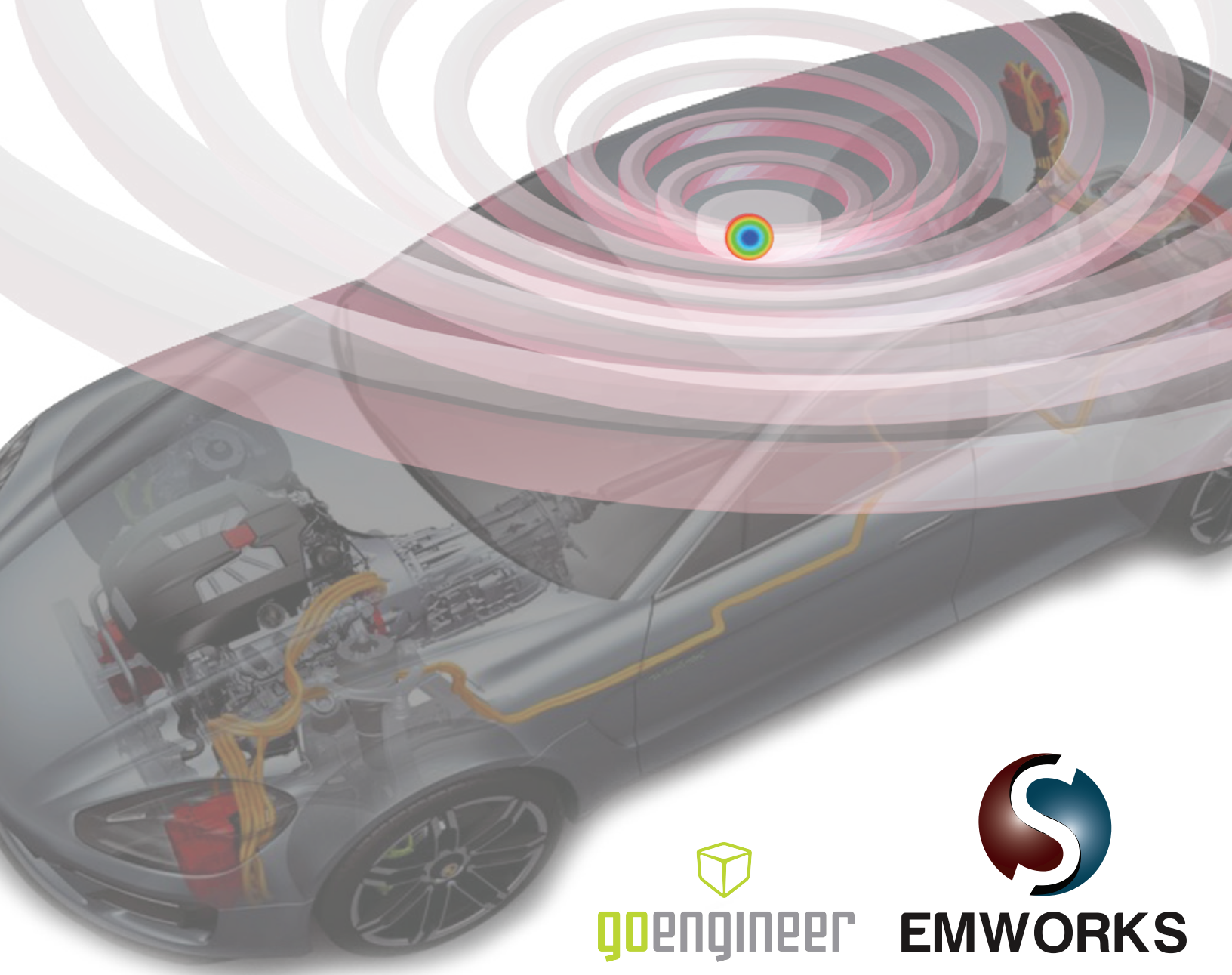


## High Frequency Simulation for

The only electro magnetic package  
fully embedded inside SolidWorks!

The ultimate workbench to test your  
design ideas!

Accurate, versatile and easy to use!



goengineer



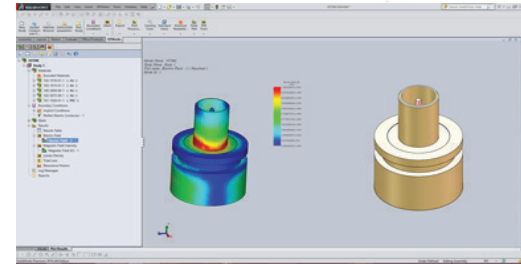
EMWORKS

## High Frequency Simulation

The original high frequency field simulation package developed exclusively for SolidWorks users.

### Resonance

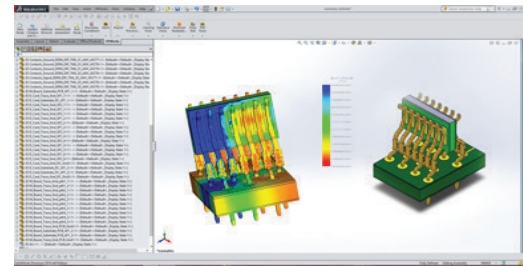
- Does your design require careful attention to resonance?
- Are you designing a resonator?
- Do you need to know the quality-factor of your resonant structure?
- Do you need to separate conductor and dielectric losses?
- What about optimizing pole-zero placement for your filter design?
- How does changing materials/geometry impact your resonator/filter design?



Resonance analysis – Resonator

### S-Parameters

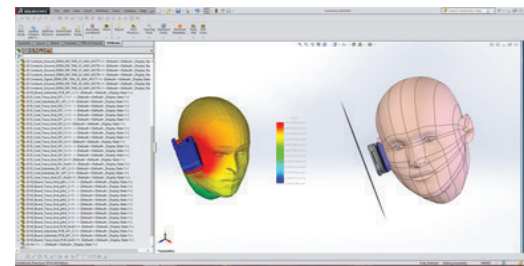
- Do you need to know the input impedance of your structure ?
- How does the return loss vary over frequency?
- Is the insertion loss acceptable?
- Are you concerned about coupling / isolation in your design? Do you want to make sure that you do not have mode conversion in your structure?
- What about cross-talk and signal integrity ?



S-parameter analysis – Connector

### Antennas

- How well does your antenna radiate?
- What is its radiation pattern and how does it vary over frequency?
- Do you need to reduce the side lobes?
- What are its gain, directivity and input impedance?
- What is its radiation resistance?
- What about polarization, axial ratio and front/back ratio?
- Do you need to make sure your design meets EMI/EMC norms?



Antenna analysis – human head

HFWorks allows you to leverage the full power of SolidWorks to bring your design experience to a whole new level.

Because it is fully embedded inside SolidWorks, HFWorks allows you to enhance your productivity and your design experience. In this powerful design environment you will be able to:

- Construct complex 3D models in record time.
- Import designs in a wide range of popular CAD formats.
- Exploit advanced visualization and rendering technologies that bring unprecedented realism to your models.
- Generate engineering drawings and CAM-ready files quickly and automatically and share your designs with your mechanical engineers.
- Shorten product design time and lower design cost.

### Advanced Features

#### Design Tables

#### Parameterization

#### Multiconfigurations

- Quickly and efficiently compare alternative designs and choose the optimal one for final production.
- Drag and drop to create and clone analysis studies.
- Easily model air parts and gaps using features like molds and cavities.
- Easily apply metallization in printed circuit boards using split surfaces.
- Share your HFWorks models with mechanical, thermal and fluid flow analysis packages inside Solidworks for multi-physics applications.